THE CANADIAN PRACTITIONER AND REVIEW

EDITORS:

ADAM H. WRIGHT, B.A., M.D. W. H. B. AIKINS, M.D.

EDMUND E. KING, M.D.

VOL. XXIX.

January to December, 1904.

67161
28/11/05

TORONTO:

THE CANADIAN PRACTITIONER AND REVIEW CO.

1904

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Aikins, W. H. B., M.D., Toronto.

Baines, Allen, M.D., Toronto.
Bingham, G. A., M.D., Toronto.
Brown, J. Price, M.D., Toronto.
Burnham, G. H., M.D., Toronto.

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Dudley, E. C., M.D., Chicago, Ill.
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Henderson, V. E., M.D., Toronto.
Hunter, John, M.D., Toronto.

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Lesperance, Joseph, M.D., Montreal.

Marlow, F. W., M.D., Toronto.
Meek, H., M.D., London.
Millman, T., M.D., Toronto.
Montgomery, Douglass W., M.D., San Francisco, Cal.
Morton, J. P., M.D., Hamilton.

McIlwraith, K. C., M.D., Toronto.
McKechnie, R. E., M.D., Vancouver, B.C.
McMahon, T. F., M.D., Toronto.
McMurchy, Helen, M.D., Toronto.

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Park Roswell, M.D., Buffalo, N.Y.
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Riordan, Bruce L., M.D., Toronto.
Ross, J. F. W., M.D., Toronto.
Russell, James, M.D., Hamilton.
Ryerson, G. S., M.D., Toronto.

Secord, E. R., M.D., Brantford.
Sheahan, John, M.D., St. Catharines.
Shuttleworth, C. B., M.D., Toronto.
Silverthorn, G., M.D., Toronto.
Starr, Clarence L., M.D., Toronto.
Stevenson, Frederick C., M.D., Bradford.

Temple, J. Algernon, M.D., Toronto.
Tunstall, Simon J., M.D., Vancouver, B.C.

Walsh, James J., M.D., Toronto.
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The Canadian Practitioner and Review.

VOL. XXIX. TORONTO, JANUARY, 1904. NO. 1.

Original Communications.

HAY FEVER: ETIOLOGY AND SPECIFIC TREATMENT.

A Resumé of the work of Dr. Dunbar, Director of the State Hygienic Institute at Hamburg.

By V. E. HENDERSON, M.A., M.B., Tor.

Since the London physician, John Bostock, in 1819 drew attention to the symptom complex which he carefully described as a separate disease under the name of "summer catarrh—catarrhus œstivus," and attributed its cause to the heat of summer, the etiology of this affection has been more or less in doubt. Dr. Dunbar, a German professor, seems, however, to have at least settled this much disputed question.

Elliotson, in 1831, was the first to suggest pollen of plants as the cause, but in 1870, Helmholz, a careful observer cast very strong doubts upon the theory. In 1873 Blackeley carried out a very careful series of experiments to show that pollen was the cause. He collected the pollen of many plants and tested them by having hay fever patients snuff them into the nose, or by placing them in the conjunctival sac, and in this way obtained symptoms of hay fever. Further he counted the number of pollen grains falling per square centimetre on a glass plate covered with a sticky film and showed that when an appreciable number of pollen grains could in this way be proved to be in the air, patients began to be affected and that the maximum fall of pollen grains coincided with the time of maximal severity of the disease. He showed, too, that pollen fell in the centres of large cities and at sea, and was wind carried for many miles. Knowing this it is strange that he did not take more pains to

obtain his pollen pure, as probably his results were due to the pollen being mixed with the pollen of grasses. In 1877 Dr. G. F. Patton, as the result of some experiments with pollen, came to the conclusion that it could not be the sole cause even in predisposed persons. Blackeley, in 1878, repeated some of his observations and reiterated his belief that pollen was a cause. In 1886, J. Mackenzie cast doubt on the pollen theory. Stricker suggested that pollen was capable of causing exacerbation, but was not effective except during the hay fever period. Heymann and Matzuschita made an examination of the nasal secretion of hay fever patients and their results led them to believe that it was caused by a micro-organism. In 1901, Weil and Thost expressed strong doubt as to pollen being the cause, and the latter suggested that it was due to odors and especially those arising from the æthereal oils in plants. Fink suggested that it was the fine terminals of the fifth nerve in nose and conjunctiva that was affected by the irritant.

Evidently, then, in spite of Blackeley's careful work the etiology of the disease was still in Germany, at all events, an open and much disputed question. Dr. Dunbar's interest in the question of hay fever was increased by the fact that following a severe attack of influenza in 1895 he became himself a sufferer from this most unpleasant affection. At that time he, too, was doubtful of the pollen theory and was inclined to believe that hay fever was caused by bacteria. A series of careful observations, however, led him to believe that Blackeley was right in his arguments. These observations and experiments were carefully made and are very interesting.

For seven years Dr. Dunbar has, while in Hamburg, suffered from typical attacks of hay fever from the end of May or the first of June till towards the middle or end of July of each year. In 1898 he took a long trip during April through France, Spain and Northern Italy. During this trip he had two attacks of hay fever, one in the last of April, in travelling from Turin to Venice and from which he completely recovered in Venice, and a second while travelling from Venice to Verona. After returning home he was free from it until his regular attacks began again in June. In 1901 while making a journey of some eighteen hundred miles during the last week in May and the first weeks in June, he was alone in his compartment and was able to make the experiment of opening and closing the window. He found that when the window was open and the train passing through cornfields he at once felt the initial symptoms of a hay fever attack in the form of beginning irritation in eyes and nose that every hay fever patient knows so well. If, however, the train was passing through forests or over heaths, the symptoms did not occur when the window was open, nor did

they occur on certain rainy days, even when passing through wheatfields. While staying in the Harz Mountains in July of that year he also noticed that he was free from attacks while in the forest, but on going into the higher uplands where the grasses were still in bloom he at once suffered. In view of these observations, he, during the critical period of the next year, that is, for about six weeks in June and July, he kept the windows and doors of the room in which he lived and worked tightly closed both day and night. In spite of the increase in heat, he was quite free from attacks of hay fever; and he found that his general health did not suffer as much as usual during that time; that he was, in fact, surprisingly well. He found, too, that on still sunny days he could take quite a long drive without suffering for it. This experiment alone should serve as a very valuable suggestion to many hay fever patients who are unable to escape to the mountains or other immune spots.

Dr. Dunbar was now thoroughly convinced that the cause of the disease was certainly not a micro-organism which having once infested the mucous membranes of the eye and nose, increased there and produced the disease with its most unpleasant symptoms, but that whatever produced the disease was something which was carried by the wind and which acted as a definite irritant, and that the attack was only prolonged by renewed supplies of that irritant. He felt further that the etiology could not be considered as proved until one went further than Blackeley had done and had isolated the irritant in a pure state, and had caused by its action on the mucous membrane typical hay fever attacks, with symptoms objective and subjective, not only during the critical time of year, but also beyond or outside that critical period independent of weather or temperature, and had shown that this isolated irritant affected only hay fever sufferers and not normal individuals. With the problem thus clearly presented to his mind he gathered the pollen of grasses and flowers in a pure state. In order to do this he found that various devices were necessary. Specimens of any species of grass were carefully gathered when in bloom and with the aid of forceps their anthers were carefully removed and placed in a sterile glass dish with a cover. This dish was then shaken and the pollen fell out and appeared as a very fine yellow powder. A microscopic examination was always made to ascertain whether the pollen was unmixed with that of other grasses or plants. The pollen grains of plants differed widely in their form and size, some being prickly, some smooth, some oval or round, some with distinct corners and angles. Another method that was also used frequently was to stand the plants in water in a narrow room, and at the end of some hours surround them

with sterile dishes, and then gently shake the plant. The pollen fell out as a fine powder into the dishes.

With pollen thus obtained the following experiments were carried out after the critical period for the year had passed. The first experiment consisted in applying by means of a swab, which was dipped dry into the dish containing pollen, pollen from several species of grass to the nasal mucous membranes of six persons, three hay fever sufferers (all doctors) and three normal individuals. The three normal persons remained quite unaffected, while the three others sneezed at once, frequently, and within a minute the nasal mucous membrane of that side was so congested as not to admit the passage of air. This congestion lasted from fifteen to twenty-five minutes while the mucous membrane showed the effects throughout the day by recurring periods of congestion. In the next experiment, in which the same three hay fever patients were used, but not of course, till all symptoms due to the last experiment had quite disappeared, pollen was placed by the same method in the conjunctival sac of six persons. The three normal persons were unaffected, the other three at once felt an irritation and burning pain in the eye infected, which was at once followed by a congestion, in five minutes easily visible, a marked tear secretion and an edema of the eyelid. The subjective feelings reached their height in thirty minutes, but a feeling of general discomfort, a dull pain in the eye, with more pain on reading, lasted for eighteen hours. All the objective symptoms did not disappear till about the end of twenty-four hours. Further experiments were carefully carried out to show that the effect was not psychical in any way, and other experiments to show that it was not due merely to mechanical irritation, various purely mechanical substances being used for that end and also other pollen grains with much rougher coats than those used in the above experiments. A further series of experiments were made with eye-pollen which has a smooth coat and yet works very powerfully.

That the pollen of grasses, and in particular rye, acted as specific causes of hay fever, and that not on account of their mechanical properties, seemed to be proved by these experiments. Following these experiments many others have been tried, many hay fever and normal persons being tested with uniformly the same result, and up to the time of Dr. Dunbar's address before the Medical Society in Hamburg in the end of May some twenty-five species of grass had been tried with positive results though with varying power, and some fifty other plants all with negative results with one exception, an extraordinary but unimportant one. The lily of the valley pollen was found to bring on typical attacks, but as its pollen is not wind-

carried, from an etiological standpoint this exception is of no moment. Later experiments to be referred to later in this review have shown that the pollen of the golden rod (solidago) and the golden rod (ambrosia) bring on hay fever attacks in some cases. These plants, however, do not occur in Germany, and do not bloom during the critical time of year for the hay fever patient, which is pre-eminently that of the blooming grasses. Among the pollens tried were many of those said by Blackeley to bring on attacks, and those of many other flowers, in particular those of the roses and linden, upon which suspicion had been cast by different writers on the subject.

In order to more nearly reproduce the natural conditions of infection, two persons, one normal and the other a hay fever sufferer, entered a closed chamber to which air was supplied, each carrying a small dish with a little pollen in the bottom. On a given signal they blew into their dishes. In this way a comparatively small number of pollen grains were disseminated in the air. At the end of four minutes they left the chamber and shortly after the predisposed person began to have burning pains in his chest, which developed into a very severe attack of asthma of the hay fever type and from which he had never previously suffered. He only recovered from this attack after some two days. During the time of confinement he had, he remembered, been talking and breathing almost exclusively through his nose. At a later date the experiment was exactly repeated; the hay fever patient kept his mouth closed, breathed through his nose and as a result had all the subjective and objective symptoms of a typical hay fever attack. In both cases the normal person remained quite unaffected. As it had been suggested that the effect was brought about by an action on the end fibres of the tegumens, two persons, normal and hay fever sufferer, were injected with pollen in the rectum. The hay fever patient suffered from a burning pain and irritation, the other was quite unaffected.

Dr. Dunbar having thus demonstrated that in predisposed persons the pollen of grasses brought about hay fever and that not in any mechanical way, nor by any local effect on peculiar mucous membranes, but evidently by some process of general poisoning, attempted to farther isolate the poison. In this he was aided by the failure of one of his experiments in which he used dried pollen and which led him to repeat the experiment, the only difference being that he ground the pollen and thus ruptured its thick outer coat of suberin, allowing its inner coat of cellulose, or its contents, to become free. In this case the result was quite successful. Observation showed that this rupturing of the outer coat usually occurred when the pollen was brought into water, tears, nasal secretion, blood serum or

physiological saline, and had to take place before the irritant was set free. That as mentioned above had suggested that in the case of pollen being the exciting agent that it was the volatile oil that was the irritant. Dr. Dunbar to test this theory ground up some rye pollen and shook the debris in ether and filtered. Then he carefully evaporated the ether filtrate, and was rewarded by obtaining a largish drop of oil. Two persons, normal and hay fever sufferer, at once received half the drop each, in the conjunctival sac of one eye. Although the half drop contained the oil from many more than the number of pollen grains necessary to bring on a severe attack neither subject suffered in the least.

Fresh rye pollen was shaken with a mixture of equal parts of water and ether, the pollen grains broke up and the result was a temporary emulsion which appeared like thin mucous. On settling there was an upper ether layer, which removed and evaporated, yielded a second drop of oil, also found to be inocuous, and an underlayer, watery, with a deposit at the bottom. Both of these when tested gave positive evidence of the presence of the irritant. If the coats of the pollen grain be ruptured the contents quickly dissolves in physiological saline, tears, nasal secretion and blood serum. From a solution in saline or serum the unruptured pollen grains and the particles of the coats can readily be removed by the use of the centrifuge. The solution also contains the toxin, which therefore, is soluble. The chief constituent within the coats of the pollen grain are short, bacillus-like rods which give a starch reaction with iodine, and are therefore known as the amlyoid rods. These rods are soluble in saline, blood serum, tears and nasal secretion.

Some rye pollen was ground so as to break the outer coats of the grains, dissolved in saline, centrifuged and filtered, and to the filtrate thus freed from any undissolved grains, outer coats and debris, alcohol was added. This caused a precipitate flocculent, but very heavy. The precipitate was collected on a filter, washed with alcohol and dried. Very small amounts of the powder thus obtained when brought into contact with the nasal or conjunctival mucous membranes were sufficient in predisposed persons to bring on symptoms of hay fever. The alcoholic filtrate was carefully evaporated, and left a small amount of an hydroscopic substance which, however, proved to be quite non-toxic. Careful solution in saline with examination of the sediment with the microscope, showed that when all the amyloid rods were dissolved the sediment lost all toxic power. The amyloid masses then contain, if they are not themselves, the toxic body. The precipitate gives with warm water the same sort of thick opalescent solution as is obtained with starch. It is soluble in weak caustic soda solution, and

neutralizing such a solution destroys its toxic power. Its toxic properties in solution are not destroyed by boiling. Blood serum solutions exposed to the air loses in time its toxic power. All the pollens thus examined and capable of bringing on hay fever attacks contain such amyloid rods, but they are also contained in many pollens which are not toxic. Ordinary starch is quite innocuous.

In order to further ascertain whether the poison thus isolated was a toxin capable of working within the body, and in thus getting an idea as to whether it was absorbed and then acted in the body, or whether its action was purely a local one, the experiment of injecting a small amount of the poison subcutaneously was tried. A doctor predisposed to hay fever and a normal person were each given one-tenth of a cubic centimeter of a solution of this toxin in one cubic centimeter of water. The result in the hay fever sufferer's case was a very severe and even serious attack of hay fever combined with other symptoms not typically occuring in hay fever, such as edema and congestion of the face, loss of voice with congestion of larynx, pain in the chest and inspiratory stridor. The symptoms quickly reached their climax and in some four hours the patient began to feel better, but was not well again for some two or three days. at the site of innoculation there was a burning pain and a marked swelling, which gradually extended over the whole forearm and hand. The normal person experienced only a slight burning pain and slight swelling at the point of injection.

The experiments with the toxin have been carried out on many different persons, and in all cases with successful results in those predisposed, negative results in normal persons, and many different plants have been examined for such a toxin, but from grasses only with the exceptions mentioned above, have toxins been obtained. Sir Felix Simon, in a communication to a recent number of the *British Medical Journal*, reports on an experiment in which the toxin seemed to produce an attack of hay fever while the antitoxin (mentioned below) relieved it.

With the highly successful series of experiments whose results and whose descriptions have been condensed in the preceding experiments, Dr. Dunbar was by no means satisfied, but went further and attempted to produce a specific antitoxin for the toxin he had isolated. With this end in view he gave rabbits a series of intravenous injections (three or more) either of the toxin prepared at first from rye or of pollen at intervals of three days. The animals stood the injections well. Four days after the third injection one of the rabbits was bled aseptically and clear serum obtained. One cubic centimetre of this serum was injected into the forearm of a hay fever sufferer. A swelling formed at the point of injection with a slight burning pain.

In about an hour the patient's nasal mucous membrane was injected with a large dose of rye pollen and in a few minutes frequent sneezing, and swelling of the mucous membrane, together with other symptoms were only too manifest signs that the patient was not as yet immune. The feeling of general ill-health and discomfort were quite marked. About an hour later, however, the objective symptoms of the attack rapidly disappeared and the patient had a "fresh feeling" to which he was altogether unaccustomed after a hay fever attack. Seven hours after the injection it was found impossible to infect the patient even when large doses of toxin were used. By the next day this temporary immunity was completely lost. Clear serum from another rabbit, removed some weeks after the last injection, was added to a solution of pollen toxin in a test tube and drops of the mixture placed in the conjunctival sac of a hay fever sufferer. Though a drop contained more toxin than enough to bring on marked symptoms, no discomfort was experienced nor were there any objective symptoms. Further, a small dose of toxin was placed in the other conjunctival sac, and at once the usual symptoms of irritation and congestion set in. The patient was still liable, and the toxin had evidently been neutralized by the antitoxin without the body. This experiment was repeated many times and it was found that the antitoxin always neutralized the toxin but sometimes not completely. So, too, experiment showed that after applying the toxin to the conjunctival sac of a predisposed person, and so lighting up an attack, the application of the antitoxin serum locally, rapidly allayed the symptoms, both objective and subjective. The purely subjective symptoms disappeared very rapidly, the congestion naturally more slowly. In other experiments the antitoxin was not used till after the symptoms brought on by the toxin had become severe, and then too, successfully. In one case in which a half cubic centimeter of antitoxin was injected during a severe artificially produced attack, a sudden improvement occurred in fifteen minutes, which could easily be seen and its course followed by observing the changes in the swollen and badly congested conjunctival mucosa. This improved till almost normal at the end of thirty minutes, again grew worse, but at the end of an hour appeared quite normal, and the patient had the same "fresh feeling" experienced by the patient in the experiment mentioned before.

Dr. Dunbar found that an antitoxin produced by the injection of rye pollen or toxin was able to neutralize solutions, or act as an antitoxin for the toxin of the other species of grass or their pollen. With this success, Dr. Dunbar interested the proprietors of a factory in the question and with the use of bones a stronger

antitoxin was produced, and also in such large quantities as to be capable of a very widespread test during the following critical hay fever period. Last spring many doctors in Germany and some in England and in America tested the antitoxin, and their results were surprisingly, unanimously favorable. Some of the cases in which a carefully and frequent use of the antitoxin was made kept the patients free from hay fever in a way that proved quite a surprise to them. The antitoxin was at first used as a serum, but later owing to some objectional features arising from the necessity of adding small amounts of carbolic acid as a preservative, it was prepared in the form of a powder. The method of using the antitoxin powder that Dr. Dunbar advises, is to put a very small pinch in each nasal passage, and a still smaller pinch in each conjunctival sac before retiring to bed at night, and also before rising in the morning, and during the day only if the patient feels the initial symptoms of an attack. The patient should sleep with the window closed, to avoid infection with pollen during the night.

Having thus experimentally dealt with the question of the etiology and treatment of hay fever, Dr. Dunbar turned his attention to that type of hay fever, or autumn fever, which in America sets in in August and lasts into September. Careful experiments with the pollen of the golden rod (solidago), and ragweed (ambrosia), alleged by many to be the cause, showed that they, too, contained a toxin, which was capable of bringing on hay fever attacks in some German hay fever sufferers, but not in all. An American that Dr. Dunbar was himself able to test, reacted typically to golden rod poison, though he was not usually attacked by hay fever in Germany. Dr. Dunbar found that his grass pollen antitoxin would neutralize that of golden rod without the body, and in consequence he arranged to have his antitoxin tried in America too.

I visited Dr. Dunbar at his institute in Hamburg early in September, and in the course of conversation he told me that the results already reported from America while few were favorable. He expressed himself as being very much pleased with the success of the serum in Germany, and expected the reports from America to be equally encouraging.

Some of the more important grasses tried successfully are:—secale cereale, rye, barley, wheat, tea maize, Indian corn.

Plants giving negative results: Rosa (several species tried), tilia ulmfolio, the linden, artemesia, abainthium, the warmut.

Plants with positive results: Lily of the valley, golden rod (including solidago and ambrosia), ragweed.

OTITIS MEDIA.*

By Dr. G. H. BURNHAM.

Inflammation of the middle ear is now fully recognized as a disease so dangerous, so insidious, so far-reaching in its effects, especially the chronic purulent form, that it must be attended to and stopped, as otherwise a condition most dangerous to the one afflicted will sooner or later show itself.

I shall first mention the form unassociated with discharge, viz.: the chronic catarrhal otitis media. There are two forms, the hypertrophic and hyperplastic. The hypertrophic form of inflammation is a swelling of the lining membrane of the tympanum, and this continuing for a long time results in hypertrophy of the tissue lining the cavity, and often there is a certain amount of secretion. The same change takes place in the drum membrane, in the ossicles, ligaments and Eustachian tubes. Owing to the chronic hyperemia a fluid may collect and remain more or less permanently.

The second is characterized by tissue hyperplasia rather than by hypertrophy. The new tissue is firm and fibrous, the secretion is lessened, the walls of vessels are thickened and a true sclerosis results. The drum may show almost no variation from the normal appearance. The Eustachian tubes show greater patency than usual as there is a shrinking of its lining membrane. The sclerotic process, by its action on the ligaments and muscles, binds the ossicles rapidly together and fixes them firmly in the cavity and thus limits motion. The favorite seat of the process is the oval and round windows. The dense cicatricial tissue bands also aid in lessening the motion of the ossicles to such a degree that the vibrating motion of the labyrinthine fluid is difficult or impossible. That the hyperplastic is often secondary to the hypertrophic form is a doubtful question. In the hypertrophic form heredity is a small factor. It is seldom that any hereditary history of the aural disease is met with without the accompanying lymphatic taint. Labyrinthine complications are not common. The affection is bilateral although both organs are seldom involved to the same degree. The amount of hearing which we naturally have is, it must be understood, greatly in excess of that needed for every day use, and hence considerable impairment may take place unconsciously to quite a marked degree, and also one ear may be decidedly impaired regarding hearing and not noticed as long as the other is unaffected or only slightly so. The impairment is usually at the beginning intermittent, that is sometimes normal and again not, and the intervals gradually become shorter till relief is sought for. In the early stages the removal of affections of the nasal passages or nasopharynx, may avert

* Read at meeting of Ontario Medical Association, Toronto, June, 1903.

the disease. Any progress to a sclerotic change makes the prognosis grave. The Eustachian tubes should be opened and, if needed, treated by injections of vapours, fluids through the catheter or bougies. Inhalations through the nose used at home are often very beneficial. If all treatment fails then an operation for removal of drum, malleus, incus and the division of adhesions about the stapes may be done.

The hyperplastic form may attack one or both ears. Labyrinthine involvement of various degrees may occur at any time. The faces presented by those suffering from this form are often characteristic, showing great mental strain. The prognosis of this form is very grave indeed regarding the integrity of function, and is less amenable to treatment than all other aural diseases. For the tinnitus, dilute hydrobromic acid may be used. The drug, however, the use of which is followed by the best results, is pilocarpine. The manner of administration of this drug advised by many aurists cannot be any true test as to its merits, and leads to its abandonment in cases where, if given properly, it should be continued and a good result obtained. The proper mode is my combined treatment which I always now follow. My great faith in this treatment and my manner of using it have been found in treating diseases of the eye, where the affects produced can be seen and accurately gauged. If inflation, passive motion and like measures cause distress, stop them; if, however, beneficial, continue them.

Of the forms associated with discharge from the ear I shall mention acute catarrhal otitis media. This is an inflammatory condition within the middle ear with increase of secretion. When the lower cavity is the most affected, the secretion is mucous; but when the upper part of the cavity, then it is purulent, for in this latter a large amount of connective tissue is present, which is not in the lower cavity. Hence the name, acute catarrhal, applies to an affection of the lower, and acute purulent to that of the upper. The pain in the catarrhal form is localized and not diffuse, as in inflammation of the external meatus, and more severe than that of the Eustachian tube alone. If in from twelve to twenty-four hours spontaneous rupture of the drum occurs, the pain ceases. If the drum membrane is obtuse and does not yield to the pressure of the fluid, the vault becomes affected and the purulent type supervenes, and if no spontaneous outlet the mastoid cells become affected. In children, especially infants, the disturbance is sometimes very great as convulsions, very high temperature, vomiting, all simulating meningitis. Then the ear discharges and recovery takes place. Severe inflammation of intracranial structures probably never occurs in this type. For the severe pain give an opiate and bleed by leeches placed in front

of the tragus, also apply dry heat, or hot water bag, or Japanese stove. Drop into ear, morphia, atropine, cocaine, or carbolic acid and glycerine, 1 in 20, or adrenalin solution. Being unable to abort in twelve hours or so, incise the drum, and to allow acid to aid the fluid to escape is better than to wait for a spontaneous rupture. Attention to the Eustachian tube by Politzer bag or catheter is advisable.

Acute purulent otitis is indicative of inflammation of the upper cavity of tympanum. The most common causes are acute infective diseases, introduction of fluid into the Eustachian tube as by gargling. When evacuation does not occur spontaneously or at the hand of the surgeon, the fluid may desist the soft tissues of canal for a certain distance along the superior and posterior walls, as in this region the perristum of the canal is directly continuous with membrana flaccida and is but loosely attached to the bony margin of the meatus. This causes swelling of that part and the pus may appear in the posterior auricular region as a fluctuating swelling. This latter occurs especially in children. Cases of this disease are prone to mastoid complication. Examination of cases show that the mastoid is involved before the superior-posterior wall becomes detached. Hence the collection of fluid in this position means mastoid inflammation. In children this pus may make its way on to the outer surface of temporal bone, unless fluid is previously evacuated, and infection of intracranial structures may take place either through the mastoido-squamous suture, which is open for some time after birth, or necrosis of squamous portion, and thus direct infection follow.

The characteristic symptoms are sudden and agonizing pain deep within the ear, rise of temperature and marked constitutional depression; sometimes vertigo, when the disease occurs in children, often ushered in by general convulsions. The high temperature is in marked contrast to that seen in acute catarrhal inflammation. Involvement of mastoid cells may occur often before the appearance of discharge or later. When invasion of one of the large sinuses of the dura mater takes place or from mastoid inflammation, symptoms of pyemic affection occur, and there is a sudden high temperature as 105° or 106°, and equally sudden return to normal or subnormal, sweating and rigor. These changes in temperature are repeated at intervals, and hence it is necessary to have the temperature taken every two hours during the day, and every four at night.

The severe pain must be quickly relieved by bleeding in front of tragus. Do not use opium, as relief must come in a few hours. If no relief, incise. The incision should be above the short process of the malleus, and posterior to it: the knife should cut the cellular tissue within the vault and impinge on

the bony wall, then it is swept back to the periphery of membrane, the deep tissues being divided throughout the entire extent of the incision.

This procedure is not to liberate pus, but to prevent its formation; hence, use every precaution to make the parts aseptic. If incision made later when distinct bulging, then begin incision where the bulging is, and incise tissues in the upper cavity of tympanum so as to liberate the purulent fluid. With occurrence of tenderness over mastoid, use Lister's coil or aural ice-bag, and keep it on for at least thirty-six hours. If at the end of two days, still no amelioration of symptoms, operate upon the mastoid. When an external incision seems to be necessary, do not use Wilde's incision, which is almost obsolete, but incise the bulging of superior-posterior wall of meatus, which is much more effective. The pneumatic cells of the mastoid are located much nearer the superior wall of meatus than to the surface of the mastoid cubex, this incision often relieving tension and prevents extension of the inflammation. Even in children under three years of age the Wilde's incision is not advisable. The rule should be that all operations upon the mastoid should be thorough and performed under an anesthetic.

In the chronic purulent otitis media, there is, as a rule, a certain amount of tissue necrosis. Secondary involvement of the mastoid process is the most grave complication from which patients can suffer. When drainage through the external canal is free, the mastoid is seldom involved, if not, the pus makes its way into the pneumatic spaces of mastoid and otitis is set up. There may also be a chronic proliferatic otitis through which the pneumatic spaces are obliterated, and the whole mastoid becomes dense eburnated bone. In this form there is sometimes marked tenderness, thus simulating an acute inflammation of this process. We must remember that insurance companies continually reject applicants suffering from chronic otorrhea in order to realize how grave a menace to life it is. It often happens in an ear which has discharged since childhood that the flow ceases and the ear remain perfectly dry, save the occasional appearance of an offensive discharge. This symptom is often due to the presence of an aspergillus in the walls of the meatus or tympanum. If unable to stop the discharge by ordinary means, it is felt that the discharge is due to diseased tissue. The course is now to remove the ossicles and curettement of the tympanum. The otitis of the mastoid that often follows suppuration after the latter has been stopped, and which hardens the bone, becomes sometimes intensely painful, the ear being quite healed for a long time. Also in this connection, persistent facial neuralgia of obscure origin, the ear should always be examined.

In cases of intracranial involvement complicating mastoid inflammation, the process is usually confined to the meninges covering the posterior cerebral lobe or cerebellum, when extension takes place through the roof of the tympanum, the contents of the middle central fossa is usually involved. In all operations upon the mastoid it is advisable, first, to remove that cortex close to the posterior wall of the meatus, and then enlarge as much as may be necessary.

Pus in the bony cavity of the mastoid may find exit spontaneously in several ways. (1) Through the external mastoid cortex, either behind the ear or into the external meatus; (2) through the cortex into the digastric fossa; (3) Through the roof of the antrum or the tympanic vault into the middle cranial fossa; (4) into the posterior cranial fossa, usually lymphatic, into the groove lodging the lateral sinus.

If one of the large venous sinuses becomes the seat of an infectious thrombus, the temperature changes are the most characteristic. Local œdema behind the ear is more characteristic of a circumscribed inflammation of the canal than of the mastoid. A condition which should never be forgotten is the occasional rupture of a mastoid abscess upon the internal surface through the digastric fossa. Here the pain is referred to the lateral cervical region, and later on a diffuse brawny swelling is made out beneath the sterno-cleido mastoid. A brain abscess which has remained latent for many years may again become active by an acute exacerbation of the disease within the tympanum and mastoid.

As to the particular plan to be followed in the operation upon the mastoid, the weight of evidence seems to be fully to open all the mastoid cells, so that no infected area may escape observation. Otitic meningitis may occur by extension from caries of the osseous walls, and evacuation of pus into the cranium or by infection through the numerous vessels which perforate the internal plate of the skull. In children it is not an uncommon complication of a suppurative inflammation of the ear.

It is interesting to note that the primary aural affection and the primary sinus thrombosis may cause secondary thrombosis and brain abscesses upon the opposite side. For this reason much uncertainty exists as to the ultimate outcome of any operative procedure described towards the primary seat of affection. Sometimes in cerebral abscess the ophthalmoscope may reveal the presence of an abscess through a choked disc.

We have operations as follows: (1) The membrana tympani alone; (2) operations involving the intratympani soft parts: (3) operations involving the ossicular chain; (4) the operation upon the mastoid; (5) the treatment of the intracranial complications of aural suppuration.

Selected Article.

EVERYDAY AILMENTS AND THEIR TREATMENT.

BRONCHITIS.

In considering the treatment applicable to a case of bronchitis it is necessary to bear in mind the etiology of the disease. In a very small number of instances it may be caused by irritating vapours or solid particles acting directly on the mucous membrane of the bronchial tubes. Perhaps a cold east wind may thus directly excite catarrh in mouth-breathers. In ordinary cases the disease is due to the action of micro-organisms, which possibly exist as harmless saprophytes in the air-passages under conditions of health, and are enabled to become pathogenic by some diminution of the normal resistance of the tissues. It is thus in all probability that a chill is effective in exciting bronchitis. Chronic Bright's disease and lesions of the cardiac valves act as predisposing causes, owing to the defective nutrition of the bronchial mucosa brought about in the one case by poisons in the blood, and in the other by constant passive hyperemia. In other instances the disease is produced as a symptom or complication of an infective disease, such as measles or influenza, either by the direct action of the causal organism or its toxines, or, as above, by facilitating secondary infection, when the resistance of the bronchi is lowered by the infective process.

Pathologically, the first stage of an acute attack of bronchitis is marked by dryness and swelling of the mucous membrane. The lining of the tubes is hyperemic and secretes only a small quantity of tough mucus, which may be streaked with blood. A little later the secretion becomes more free, the cells of the epithelium undergoing mucoid degeneration, while leucocytes tend to escape on to the surface in increasing quantities, giving the expectoration its mucopurulent and even purulent character. In acute cases which recover, the phenomena of inflammation subside as they appeared, and the mucosa regains its normal state. If, however, as the result of repeated attacks or from some defect in resistance the condition becomes chronic, there results a thickening of the submucous tissues, while the overlying epithelium is largely destroyed. Owing to this damage and to the persisting inflammation, a continuance of the secretion is seen, the sputum being copious and mucopurulent. Complete recovery seldom or never occurs when the disease has once reached this stage.

A certain degree of pulmonary emphysema is generally present in chronic cases, being produced by the constant cough, acting upon alveoli which are in many cases deficient in elastic substance as the result of degenerative processes accompanying chronic renal disease or cardiac lesions.

We thus see that the indications for treatment vary considerably in the different stages of the disease. In the early phase, the patient complains of pain or soreness in the chest; the sputum is scanty and brought up with difficulty, while there is often dyspnea from narrowing of the tubes by swelling of the mucosa and adherent plugs of mucus. The physical signs produced are rhonchi of varying pitch, formed as the air passes through constricted portions of the air-ways. Under these circumstances much may be done by supplying the inflamed tubes with warm, moist air, which has a soothing effect and counteracts the distressing sense of dryness in the chest. A steam kettle and a tent-bed often give great relief. Warm fluid food should be given, as swallowing hot drinks has a reflex effect on the bronchi, and aids the expectoration, apparently by increasing the flow of mucus. Dr. Mitchell Bruce advises the use of hot lemonade (home-made) drunk freely. Hot poultices or fomentations to the chest and back are comforting to most patients; in other cases stimulating liniments, such as that containing turpentine and acetic acid, may be preferred. By way of medicine we may give either such a mixture as: Ammonium carbonate, 3 grains; iodide of potassium, 2 or 3 grains; solution of acetate of ammonium, 2 drachms; and camphor-water to 1 ounce: to be taken every four hours. Or, ipecacuanha wine and tincture of squill, of each 10 minims; spirit of nitrous ether, ½ drachm, and chloroform-water to 1 ounce. The effect of iodide of potassium in small doses is to produce a thinning of the bronchial mucus, and it is thus sometimes effective in cases in which the sputum is tough and difficult to bring up. It is well to remember that if it be desired to add this drug to the second of the mixtures given above, it is necessary to add at the same time a little alkali of some sort, such as ammonium carbonate, to neutralize the slight acidity of the nitrous ether.

In old persons there is often a tendency to heart-failure accompanying bronchitis. This may call for the exhibition of stimulants, such as alcohol or strychnine, the latter being administered preferably hypodermically. Or a mixture containing ether and ammonia may be employed, *e.g.*, spirit of ether (sulphuric, not nitrous) 20 minims; sal volatile, ½ drachm; syrup of orange, one drachm; and camphor water to one ounce. This may be given every four hours, and if there is need, a few drops of tincture of digitalis may be added to it.

If the bronchitis continue, and there are cyanosis and signs of engorgement of the right side of the heart, venesection may be needed and often gives great relief, eight or ten ounces of blood being taken from the median basilic or any other convenient vein. Instead of this, if there is any reason to hesitate to bleed, leeches may be applied over the front of the chest, and the hemorrhage encouraged by hot fomentations.

A brisk purgative is often useful at the outset of a case of acute bronchitis. Carlsbad salts or a Seidlitz powder may be used, with or without a preliminary dose of calomel ($2\frac{1}{2}$ or 3 grains). The use of sedatives, such as opium or morphia, is not to be recommended in bronchitis, since not only do they reduce the sensitiveness of the bronchial mucous membrane and thus prevent the irritation which is the basis of cough and so of the necessary expulsion of mucus, but the secretion from these surfaces is diminished in amount and rendered more viscid, so that it is brought up with greater difficulty, while the respiratory centre in the medulla is depressed, and any tendency to asphyxia aggravated. Hence any sedative drugs must be given with caution, and only in suitable cases. Any lividity or sign of respiratory failure is an absolute contra-indication. Probably the only condition in which an opiate linctus is permissible is when there is an irritable, dry cough, which is not effectual in bringing up any sputum and which prevents sleep. If the patient is robust, the heart working well, and respiration not embarrassed, a few drops of the liquor morphine may be permissible, or we may employ instead the morphine-derivative, heroin, in doses of $\frac{1}{16}$th to $\frac{1}{10}$th grain. As a general rule we may, however, recall the ancient tip that morphia is to be avoided in the "Three B's"—Bright's disease, bronchitis and babies.

In young children the course of treatment may be on the same lines as have been sketched above, but it is generally better not to employ poultices to the front of the chest owing to the softness of the ribs, and the necessity of avoiding any impediment to the respiration in the form either of weight or constriction. A light jacket of cotton-wool may be used instead, the chest being well rubbed back and front with a liniment of turpentine and acetic acid of half the strength of the official preparation. An emetic is sometimes useful in clearing away the mucus from the air-passages, if there is much cyanosis and labour in breathing; but it is not usually called for, and it must be remembered that a depressant like ipecacuanha, the usual emetic, is to be avoided if possible.

The danger in bronchitis, unlike that in croupous pneumonia, is rather the mechanical blockage of the bronchial tubes with mucus, whereby the entry of air is impeded, than a toxemia

due to infective organisms. The patients often tend to lie propped up in one position, without change of posture, and may in bad cases sink into a drowsy condition, so that the mucus tends to accumulate in the lower air-passages and to leave portions of the lung imperfectly expanded and aerated. For this reason, as has been pointed out by Bruce, the process of making a patient sit up in bed for percussion and auscultation is often beneficial, and we need not hesitate to make a daily physical examination of the bases of the lungs, although it may cause coughing. This is really an advantage, and the patient's ultimate good should be thought of rather than his immediate comfort.

As the case progresses, the sputum becomes looser, and the poultices to the chest may soon be left off. If a stimulating liniment have been used, it may be persevered with during the second stage of the disease; but it is well not to pass directly from poultices or fomentations to a liniment, as the skin may be unduly tender at first after the moist applications. The steam kettle may next be dispensed with, and then the tent gradually removed, the curtains being first looped up, if the weather be cold, before the whole is dispensed with.

By continued use of an expectorant or alkaline mixture exudation into the bronchi can be kept up indefinitely. It is necessary, therefore, during convalescence to discontinue the use of such medicines, and the disappearance of moist sounds from the chest may be accelerated by administering an acid tonic, such as dilute nitro-hydrochloric acid, 10 minims; tincture of nux vomica, 5 minims; spirit of chloroform, 10 minims; and compound infusion of gentian to 1 ounce: to be taken three times a day after meals. Or, tincture of cinchona, 20 minims; dilute nitric acid, 10 minims; syrup of orange, 1 drachm; and chloroform-water to 1 ounce, may be substituted. In some cases quinine may be useful, in others some form of iron-preparation is indicated. In children a course of the compound syrup of the phosphate of iron is often useful, or malt-extract and cod-liver oil may be employed.

CHRONIC BRONCHITIS.

When bronchitis has become chronic, the condition of the air-passages is no longer susceptible of complete *restitutio ad integrum*. A certain amount of damage to the mucous membrane will remain in any case, and act as a predisposing cause of subsequent attacks. Some secretion exudes almost continually, and on the slightest provocation a subacute bronchitis is lighted up. The expectoration is usually muco-purulent, and often reaches a large amount. Some degree of emphysema is

almost invariably present in addition. Unless a more than usually acute exacerbation occur, there is little need of expectorants; but should such an acute attack occur, it must be treated as sketched above. Otherwise most may be done for these patients by attending to the general health. If circumstances permit, it is desirable for these sufferers to winter in a warm climate, so as to avoid the cold and damp of this country. Needless to say they should not return too soon in the spring, which is often more inclement than the nominal winter. The appetite must be encouraged, and cod-liver oil and preparations of malt are as suitable for these patients in many cases as for the tubercular.

No special limitations as to diet are necessary in these cases, as a rule, any good nourishing form of food being permissible. It is well to remember, however, that in a certain proportion of cases of bronchitis there is a gouty factor, and that in such instances an "anti-gouty" regimen must be adopted, a mixture containing bicarbonate of potassium and a little iodide of potassium, with sulphate of magnesia to regulate the bowels, sometimes acting very beneficially on the bronchial condition.

Owing to the frequent co-existence of chronic renal disease with chronic bronchitis, it is well to make a point of examining the urine for albumen and casts in all these cases.—*The Practitioner.*

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, H. J. HAMILTON AND T. A. CLARKSON.

Theocine as a Diuretic.

Prof. Minkowski was the first to experiment with and recommend this new remedy. Kossel in 1888 obtained from the extract of tea an alkaloid called Theophyllin. Doctor Gino Norsa, of the University of Perugia, has followed up the experiments of Minkowski, administering Theocine to twelve patients, suffering from mitral and other heart lesions, etc. His results are most elaborately given and he comes to the conclusion that this new remedy is a most powerful diuretic, rapid in its action, quickly eliminated from the system. It lessens the frequency of the pulse. He did not find any benefit from its use in nephritis and pleurisy. From his observations he is of the opinion that Theocine exerts a very slight effect on the heart, but a most remarkable effect on the kidneys, especially on their vasomotor elements, and without any ill results.—Translated by Harley Smith.

On the Transmissibility of the Pneumococcus from Mother to Foetus.

Pregnancy in women suffering from lobar pneumonia is interrupted in about half the cases (Bowlay). The fœtus generally dies before the mother. We have not yet found the cause of the abortion. In spite of positive observations showing passage of the infection from mother to fœtus, observations to the contrary effect have also been made. Thorner saw an infant that died thirty-three hours after birth, the mother having septic infection. Autopsy of the baby revealed bilateral pneumonitis, with cocci and diplococci in the hepatized portions. Foa and Bordoni Uffreduzzi made similar observations, as also Marchand, Levy, Hecher, Carbonelli and Ferrari. Dr. Caporali of the University of Naples, experimented with five rabbits, two of which were fifteen days pregnant, and the others were near the end of pregnancy. He injected a very virulent culture of pneumococcus subcutaneously. The rabbits died in from one to four days, according to the doses given. The results obtained were negative. The pneumococcus was not found in the blood, placenta or the organs on cultural examination or on histological examination of the different

tissues. These results show that the passage of the pneumococcus from the mother to fœtus must be infrequent. (Similarily Sanchez Toledo and Olimpio Cozzolino found, in their investigations, that the passage of the tubercular bacillus from mother to fœtus is quite exceptional, contrary to the views of many.) One obstacle to such transmission must be in the placenta. Death took place not owing to the passing of the pneumococcus from mother to fœtus, but owing to various circumstances observed in infection, namely, the change in the chemical quality of the blood, the toxic products elaborated by the bacteria and accumulated in the blood, and the lowering of the maternal blood pressure (Charrin).—Translated by HARLEY SMITH.

The Stomach in Migraine and Epilepsy.

Mangelsdorf (*Berliner Klinische Wochenschrift*) found the stomach much enlarged during attacks of epilepsy and migraine gradually producing permanent atony. He found that treatment of the gastric condition had a favorable influence on the attacks of migraine. The stomach enlarges regularly in all directions during the seizures, and becomes more or less normal in the interval.

Etiology of Rheumatism.

In the *British Medical Journal* of September 19th, 1903, Dr. Ainley Walker and Mr. Ryffel report a series of interesting experiments which throw some light upon the cause of rheumatism and explain some of its manifestations. They found that the "micrococcus rheumaticus" produces formic acid in very considerable quantities and that this acid is not only present in the filtered cultures of the organism, but it can also be extracted from the bacteria themselves. They also succeeded in obtaining formic acid from the tissues of a rabbit suffering from acute arthritis due to the inoculation of this micro-organism.

They state, too, that while in normal urine, formic acid is absent, in the urine of rheumatics it can be demonstrated. Probably the formic acid originates in the body from the oxidation of sarcolactic acid.

Furthermore they added two other facts of much importance. The micrococcus rheumaticus has a hemolytic action upon red blood corpuscles greater and more rapid than that of any streptococcus which they have yet examined. This will account for the rapid anemia of acute rheumatism. They succeeded also in isolating an albumose from cultures of the organism grown in albuminous fluids. On injection into rabbits and guinea pigs this rapidly produced pyrexia.

These experiments would explain the reason of the success of the old alkaline treatment in acute rheumatism, and would throw some light, at any rate, upon the specific action of the salicylates.

The Etiology of Diabetes.

The question of the orgin of the sugar in the urine in this disease has perplexed investigators for some time, but at last Cohnheim, as the result of much work, has offered a very simple solution. It has long been known that the islands of Langerhans are chiefly affected in diabetes, and probably they are responsible for the internal secretion of the pancreas. Herter produced glycosuria by painting the surface of the pancreas with suprarenal extract and other reducing agents. It was well known, too, that the muscles were the seat of the oxidation of sugar, which is the chief source of heat and energy. But it remained for the genius of O. Cohnheim to connect these two series of facts. Although neither an extract of pancreas, nor of muscle (made by expressing the juices of the cells with a powerful press), possessed any glycolytic action, yet a combination of the two was able to destroy sugar rapidly, and in time completely.

It would appear from this experiment that the islands of Langerhans elaborate a pro-ferment which, passing in the blood to the muscles, meets there another pro-ferment, with which it unites to form a sugar-destroying ferment. This reminds one of the way in which the trypsinogen of the pancreas unites with the enterokinase of the intestine to form trypsin, and of the manner in which complement and intermediary bodies combine in bacteriolytic serum.

These facts would point to an absence or deficiency of the internal secretion of the pancreas as the cause of diabetes.

A Review of Some Recent Investigations Relating to the Pancreas.

T. S. Hart, New York *Medical News*, quotes Bayliss and Sterling. The secretion of the pancreatic juice is normally evoked by the entrance of acid chyme into the duodenum, and it is proportional to the amount of acid entering (Pawlow). This secretion does not depend on a nervous reflex, and occurs when all nervous connections of the intestine are destroyed.

Contact of the acid with the epithelial cells of the duodenum causes in them the production of a body (secretin) which is absorbed from the cells by the blood current, and is carried to the pancreas, where it acts as a specific stimulus to the pancreatic cells, exciting a secretion of pancreatic juice proportional to the amount of secretin present.

This substance, secretin, is produced probably by a process of hydrolysis from a precursor present in the cells which is insoluble in water and alkalies, and is not destroyed by boiling alcohol.

Secretin is not a ferment.

The pancreatic juice obtained by secretin injection has no action on proteids until "enterokinase" is added; the action on fats is increased by the addition of succus entericus. It is, in fact, normal pancreatic juice.

Secretin rapidly disappears from the tissues, but cannot be detected in any of the secretions.

It is not possible to obtain a body resembling secretion from any tissues of the body other than the mucous membrane of the duodenum and jejunum.

Secretin solutions, free from bile salts, cause some increase in the secretion of bile. They have no action on other glands.

Acid extracts of the mucous membrane normally contain a body which causes a fall of pressure. This body is not secretin, and the latter may be prepared free from the depressor substance by acting on desquamated epithelial calls with acid.

There is some evidence of a specific localized action of the vasodilator substances which may be extracted from various tissues.

Oatmeal in Diabetes.

Von Noorden (*Berliner Klinische Wochenschrift*) finds that it is possible on a diet of oatmeal to lessen the quantity of sugar in the urine, and also the acetone bodies. The porridge is made by thoroughly cooking 250 gm. oatmeal or rolled oats with 300 gm. butter and 100 gm. albumin, in the form of vegetable albumin, or the white of an egg may be added after the porridge is partly cooked. This is sufficient for 24 hours' nourishment, and is given every two hours. He allows at the same time a little wine, brandy, or strong coffee. This diet is especially useful in those cases which fail to derive any benefit from the ordinary diabetic foods. After a few weeks' successful trial with this the patient can gradually substitute other articles, but must always retain a proportion of the porridge. Von Noorden reports great success from a year's experience, finding the acetone vanish in a few days, and the sugar always very low.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, K. C. McILWRAITH, FRED. FENTON AND HELEN MacMURCHY.

Marginal Placenta Previa with Prolapse of the Cord.

Dr. W. E. Fothergill reports in the *Practitioner* (English), November, an interesting case of marginal placenta previa with prolapse of the cord. The placenta was "battledore," and the cord was inserted into that part of the margin of the placenta which was nearest to the os uteri. Owing to the position of part of the placenta and of the cord within the lower uterine segment the head was unable to engage, and this doubtless saved the child's life by preventing compression of the cord. The classical treatment by reposition of the cord was impossible. The writer quickly completed the dilatation of the cervix with the hand, applied the axis traction forceps without waiting for the head to engage, and delivered the child quickly enough to avoid fatal compression of the cord. It at once cried lustily.

NOTE.—I give this synopsis of report with full text as to treatment simply to sound a note of warning. The ordinary physician might suppose that such treatment carried out by an obstetrician like Fothergill, and apparently endorsed by a journal like the *Practitioner*, was, as a matter of course, proper under the circumstances. It should be remembered, however, that rapid dilatation of the cervix with the hand in any form of placenta previa is fraught with grave danger to the life of the mother. For this reason I believe the procedure is never justifiable. Last year one of the most careful and able physicians in Toronto, in his efforts to extract a child too quickly, caused a rupture of the lower segment of the uterus, which resulted in the death of his patient. Dr. Whitridge Williams, of Baltimore, recently reported a case where he caused rupture of the uterus during manual dilatation of the uterus, although he used very little force. The cervix uteri is a very uncertain quantity when the placenta is previa. It is generally soft and dilatable early in labour, but strictures and rigidity frequently exist (in about twelve per cent. of the cases, according to Müller.) In either condition rupture is apt to occur, and a tear of the cervix may very readily extend through the thin lower segment which is more or less weakened through the unnatural implantation of the placenta on unsuitable soil. Is the rationale of Braxton Hicks' method less understood in England than in most of other countries?

A. H. W.

Saline Infusions in the Treatment of Puerperal Eclampsia.

Sir,—In the *British Medical Journal* of November 7th, page 1211, Dr. Lithgow states that he "injected underneath the skin of the abdomen about two pints of a saline solution (common salt ℥j, potassium carbonate ℥j), as recommended by Jardine." Allow me to point out that I have never recommended such a solution. The solution I first used was one of ½ drachm each of bicarbonate of potash and common salt to the pint, but I soon gave it up, and now use a drachm each of acetate of soda and common salt to the pint. Potash salts when injected directly into the blood are powerful cardiac poisons. When used subcutaneously they do not seem to act in this way, at least I never found it so with the doses I used, but to obviate any risk of this I substituted the soda salt. The soda salts are non-poisonous and the solution can be injected directly into a vein, a proceeding which I adopt in cases which allow of bloodletting. I am, etc.,

ROBERT JARDINE.

The Significance of Urinalysis in Pregnancy.

In a series of nearly 1,800 urinalyses made during the past two years, a considerable number of the examinations were in the cases of women in the later stages of pregnancy. Of the entire number of specimens of urine obtained from parturient women, only a comparatively small percentage (22 per cent.) was entirely free from albumin and sugar; while in no case in which glucose was noted was albumin absent. In nearly 60 per cent. at least a trace of albumin could be detected. In many of the cases the albuminuria began to manifest itself about the fifth month. In some it was not present until the last days before delivery. In a few it became evident directly before the appearance of active labor pains, its presence being discovered, at times, only by accident, if the term may be fairly employed.

When glucose appeared in the urine of a subject known to have not previously shown glycosuria, the occurrence, as a rule, took place at some time between the beginning and the end of the last month of pregnancy. Occasionally there was a trace of glucose present throughout the pregnancy, often disappearing completely after the birth of the child.

In no case in which, in the absence of other indications of acute or permanent renal change, small quantities of either serum albumin or glucose (not evident previously) were found present during pregnancy, did the urine fail to regain its normal character shortly after the birth of the child, except in the few cases in which fatal eclampsia supervened.

In the majority of cases the urea elimination was that of the

normal woman under ordinary circumstances other than those of childbearing. Its excretion varied with the individual, and especially in relation to the diet and exercise. Occasionally the quantity excreted appeared persistently high, and just as often exceedingly low; but with no evident bearing upon the otherwise normal outcome of the case.

When the microscopic sediment indicated positive renal change, the beginning of this change almost invariably appeared to have antedated the pregnancy, and as a rule continued after the puerperium as a permanent condition. Exceptions were noted even to this rule, however.

What dependence can be placed upon urinalysis as a warning against impending eclampsia?

The following case is interesting in that it presents the picture of a urine, absolutely normal on the evening prior to the beginning of labor: a total absence of a history of nephritis, and yet a series of convulsions beginning while the fetal head was on the pelvic floor, and continuing into the postpartum stage after an instrumental delivery. The following presents merely an outline of the case:

Mrs. J. F. E., aged 26 years, family history negative. One child living and well, forceps delivery, after a long but otherwise uneventful labor. Seen for the first time by the writer on March 14th, 1903, at which time the patient considered herself six months pregnant. The abdomen was very large, but the patient stated that this was also true of the first pregnancy. The right leg was swollen, also the right labium, the veins of which and of the right vaginal wall were swollen and tortuous. This condition was greatly relieved in the recumbent posture, and was evidently due to pressure in the abdominal cavity. The vertex was distinctly felt on vaginal examination, approximately in the L. O. A. position. Pelvic measurements were all normal.

The urine at that time was examined and showed: A. M., 10.10, acid, amber, clear, sediment scanty, white, flocculent; albumin faint trace: sugar none: urea 1.22 gms. per 100 cc. microscopically, full of squamous cells, no renal sediment, few leukocytes, no crystals. P. M., 10.20, acid, etc., albumin faint trace, sugar none, urea 2.80 gms., no renal sediment, full of squamous cells

From this time until May 18th inclusive, the urine was examined weekly. On the latter date both the morning and evening specimens were examined. At no time during this period could albumin or sugar be detected. No casts, and no renal epithelium was present. The urea averaged 2 gms. per 100 cc., and on the last examination before labor began was 2.18 gms. On May 19th the writer was called because of

colicky pains over the abdomen. There was some headache, and it was learned that the bowels had not been moved for two days. At this time the patient was supposed to be about one month from term, but the abdomen appeared so large that oncoming labor was suspected and the vaginal examination showed the cervix already dilating. After a long, slow labor of twelve hours the vertex was on the perineum. Convulsions suddeuly supervened, following the second of which forceps delivery was carried out with the assistance of Dr. W. A. N. Dorland, and without injury to mother or child. The placenta was at once delivered with the hand in the uterus. An hour later a third convulsion took place, followed by a fourth, fifth and sixth. The urine drawn by catheter showed the following: 10.12, acid, strong odor of decomposition; albumin 1 gm. per liter, sugar none; urea 1.18 gms. per 100 cc., considerable number of hyaline and hyalogranular casts, no blood, considerable renal epithelium.

The patient was bled, and then transfused into a vein with normal salt solution. She was then kept in a steam bath almost continuously for six hours, when the kidneys again began to take up their share of the work. Consciousness was not regained for thirty-six hours, though no convulsions occurred after transfusion.

The urine rapidly cleared up, until at the present time it is perfectly normal, and the patient is free from evident impairment of the renal functions, and with no recollection of the ordeal.

Dr. Dorland has informed the writer of a case of eclampsia recently seen by him in which the urine was examined immediately before labor, and found to be normal, but in which convulsions appeared and death ensued before morning.

We have studied cases which have presented urinary pictures of seemingly grave import, but in which labor has followed a normal course; and, on the other hand, cases of dangerously obstinate and even fatal eclampsia occurring in spite of kidneys which, up to the moment of labor, were supposedly healthy. As a result of our study we are confronted with the question. Can eclampsia be accurately foreseen and avoided by the careful attendant upon the case; and, does albuminuria or even a renal sediment predict with any degree of accuracy parturient or puerperal eclampsia. By way of answer the following conclusions seem warranted at the present time:

1. Careful urinalyses should be carried out in all in cases of pregnancy at frequent intervals and with increased frequency as term is approached.

2. The most dependable indications of impaired renal function, and of probable eclampsia, have been shown by general

experience to be the presence of decided quantities of serum albumin, the diminution of the eliminated urea and the presence of a microscopical renal sediment (casts, renal epithelium, blood, etc.). The character of the latter, when accompanied by the well-known clinical signs of nephritis, always constitutes a working basis for an estimate of the probability of imminent danger.

3. Even if the urine appear perfectly normal the possibility of eclampsia must be considered, especially in young women. Eclampsia in such cases is of equal severity with that of cases in which the urine has given due warning of impaired renal functions.

4. When eclampsia supervenes upon labor in a subject with previously (apparently) healthy kidneys, the tendency subsequently is toward a return to normal renal functions if the patient survives. This circumstance would seem to indicate still more strongly that the kidneys may actually have been normal up to the time of a temporary embarrassment and suspension of function.

5. Although we fail to find in urinalysis an unerring indication of the behaviour of the case, it is a safeguard we can ill afford to neglect. Until the nature and pathogenesis of uremia and eclampsia are more thoroughly understood it would appear to be our best guide to safe treatment and accurate prognosis.

6. The prognosis seems to be vastly improved if eclampsia be combated by generous bleeding, followed by venous transfusion with normal salt solution. These measures reduce and dilute the poison in the circulation and relieve the cardiac distress. Free diaphoresis and purging are of course indicated.

[From a paper presented before the Philadelphia County Medical Society, by Dr. R. N. Willson.]

Ophthalmia Neonatorum—Chorionepithelioma.

Two very interesting discussions have been held in the London Obstetrical Society lately, reports of which have come to hand in the *British Medical* and other journals, one on Ophthalmia Neonatorum and one on Chorionepithelioma.

The discussion on the former subject was opened by Mr. Sydney Stephenson who remarked that this disease was the cause of more blindness than any other local disease of the eyes, excepting atrophy of the optic nerve, amounting to 10 per cent. of cases of blindness. Of forty-eight cases gonococci were demonstrated in 60 17 per cent. Infection from this organism might come about in three places: (1) In the maternal passages either before or during the act of birth; (2) almost immediately after birth; or (3) one or several days after birth. The second was by far the most common mode of infection, but

cases were cited to show that rarely the eyes might become infected *in utero*. The author advocated the instillation of 2 per cent. nitrate of silver (Credé's method) as the best prophylactic, though acknowledging that it nearly always caused slight catarrhal conjunctivitis. Solutions of protargol and corrosive sublimate were good, but inferior to the silver nitrate. In these opinions there was a very general concurrence, though some of the members admitted that they did in private practice. Many of them used bichloride solutions.

We have had experience with 2 per cent. silver nitrate and 20 per cent. protargol, and agree with the conclusions of Dr. Stephenson entirely. The sublimate we have not used, as more than one of our opthalmia surgeons consider it injurious to the cornea, even in very dilute solutions.

Chorionepithelioma or deciduoma malignum as it is, perhaps more commonly called, is an affection to which much attention has been directed in the last few years. The paper presented to the society on June 3rd last by Dr. J. H. Teacher, of the University of Glasgow, is a very able presentation of our present knowledge of the question. The author gives unreserved adherence to Marchand's view, which he says is accepted by almost everyone on the continent. The discussion of the paper developed the fact that this view was much more generally accepted in England than when the Society last discussed the question in 1896, under the leadership of the late Professor Kantback.

Briefly stated the conclusions are as follows:

(1) Chorionepithelioma is a malignant tumor of the uterus arising in connection with confinement, abortion, or hydatidiform mole. Microscopically its most typical elements are: (*a*) Small, well-defined polyhedral cells, with large vesicular nuclei closely packed together in masses without any connective tissue stroma between them; (*b*) large multi-nucleated irregular masses of protoplasm (plamodia or syncytia) in which no definite boundaries are recognizable; (*c*) large cells, sometimes mono-nucleated, sometimes multi-nucleated, some of which presents a resemblance to decidua cells, while others are identical in character with the multi-nucleated giant cells which occur in the decidua serotina. These are, in some parts, arranged in cell masses without intervening tissue stroma, in other parts they are infiltrating and destroying adjacent tissues after the manner of sarcomata.

(2) Langhan's layer of cells and the syncytium of the chorionic velli are both of fetal epiblastic origin, and capable of being transformed into one another. The tumor has its origin from both these layers, and not from the decidua.

(3) The connection with hydatidiform mole is very close. In regard to prognosis it is :

(4) Grave in all cases, but early recognition and early radical operation offer a fair chance of recovery. The fact that metastaris has occurred does not necessarily preclude successful operation, although it materially diminishes the prospects of success.

The paper is extremely interesting and well repays a careful study. K. C. M.

The Condition of the Pelvis in Women on whom Symphyseotomy has been Performed.

Tissier read notes on the after-histories of twenty women who had been delivered by symphyseotomy during the period 1898–1903, February 3rd. These cases were operated on at seven different hospitals. Only four out of the twenty escaped without some undesirable sequela, the remaining sixteen being all more or less damaged by the operation. One patient is a chronic invalid (5 years). Eight have suffered from phlebitis. Ten have had urinary troubles during months or years, incontinence of urine being the most common urinary affection. As a rule it improves with time, but reappears on exertion or with a coughing effort. A number of women (number not stated) have difficulty in efforts of lifting, or in going up stairs.—*Bulletin de la Société D'Obstetrique de Paris*, reported in the *Journal of Obstetrics and Gynecology* of the British Empire. K. C. M.

OPHTHALMOLOGY AND OTOLOGY.

IN CHARGE OF J. T. DUNCAN.

School Children and Diseases of the Eye and Ear.

A systematic examination of the scholars attending the Chicago schools showed that 32 per cent. of the boys and 37 per cent. of the girls had defective vision. The Board, therefore, recommended that the eye and ear of every pupil be examined once a year by the teachers. The plan is simple and easily carried out in about five minutes' time. The teacher asks ten questions, the answers to which enable him to discover if a defect exists. If so, the parents receive a card of warning.

PLAN OF EXAMINATION.

The necessary material simply consists in the testing charts and the warning cards for parents.

The charts are made of pasteboard, partially broken at the lower third. Above the broken line are letters of various sizes, below are the directions for testing, which are as follows:

"Do not expose the card except when in use, as children may learn the letters by heart."

First grade children need not be examined. The examination should be made singly in a separate room.

Children already wearing glasses should be treated with such glasses properly adjusted on the face.

Ascertain if the pupil habitually suffers from inflamed lids or eyes.

Place the testing card on the wall in a good light; do not allow the face of the card to be covered with glass.

The line marked xx (20) should be seen at 20 feet, therefore place the pupil twenty feet from the card.

Each eye should be examined separately.

Hold a card over one eye while the other is being examined. Do not press upon the covered eye, as the pressure might induce an incorrect examination.

Have the pupil begin at the top of the test card and read aloud as far as he can, first with one eye and then with the other.

If the pupil does not habitually suffer from inflamed lids or eyes, or can read a *majority* of the xx (20) test type with each eye, and does not, upon inquiry, complain of *habitually* tired, painful eyes and headache after study, his eyes may be considered satisfactory. But, if he habitually suffers from inflamed lids or eyes, or cannot read a *majority* of the xx (20) test type with both eyes, or habitually complains of tired or painful eyes or headache after study, a card of information should be sent to the parent or guardian.

Facts to be Ascertained.

1. Does the pupil habitually suffer from inflamed lids or eyes?
2. Does the pupil fail to read a majority of the letters in the number xx (20) line of the Snellen's Test Types, with either eye?
3. Do the eyes and head habitually grow weary and painful after study?
4. Is the pupil probably "cross-eyed?"
5. Does the pupil complain of earache in either ear?
6. Does matter (pus) or a foul odor proceed from either ear?
7. Does the pupil fail to hear an ordinary voice at twenty feet in a quiet room?
8. Does the pupil fail to hear the tick of a good-sized watch at three feet with either ear in a quiet room?

9. Does the pupil fail to breathe properly through either nostril?

10. Is the pupil an habitual "mouth-breather?"

If an affirmative answer is found to *any* of these questions, the pupil should be given a card or letter of warning to be handed to the parent, which should read something like this:—

Dear Sir:

After due consideration it is believed that your child has some eye-ear disease, for which your family physician or a physician who makes a specialty of diseases of the eye or ear should be consulted.

It is earnestly requested that this matter be not neglected, as children with eye-ear diseases cannot attain the best results in school.

Respectfully,

.....

Principal.....School.

Either the word "eye" or "ear" may here be crossed out as may be appropriate for the case. If the pupil has presumably both an eye and ear disease, *both* words may be left and the space between the words "eye" and "ear" should be filled in with the word "and."

It will be observed that these cards are non-obligatory in their nature. They do not require anything of the parent, who is at perfect liberty to take notice of the warning card or not, as he sees fit. They simply warn the parent that a probable eye or ear disease exists, thus placing the responsibility upon the parent.

It is urged that records of the tests should be kept on file in the various schools and that the tests should be made of *all pupils every October.—Canada Med. Rec.*

Degenerate Ocular Cases Resulting from Consanguinity.

L. W. Dean (*The American Journal of Ophthalmology*) remarks that if there is a perfect parent stock, and if the offspring are perfect, there can be no bad results from consanguineous marriage. If, on the other hand, there is in a family some hereditary taint, the consanguineous marriage of the first degree simply doubles the tendency for the development of the hereditary conditions. Such a condition may have been latent for generations and the marriage of first cousins has so doubled the tendency that several of the children will show the same degenerate conditions. Illustrative cases in regard to the eyes:

Case 1.—Male, age 17. Parents, grandparents, uncles and aunts had no serious eye trouble. Has three sisters—Bessie,

age 15, who is partially blind; Effie, age 9, has good vision, and Grace, age 4, who is blind. In this family, then, there are four children, three of whom are partially or totally blind. He has three cousins, all in the same family; two of them are partially blind. The parents in both families were first cousins.

CASE 2.—A family of six children. The parents were first cousins. Two of the children had good vision, four were partially blind.

CASE 3.—Parents are perfectly healthy, but are first cousins. Of the four children, one is an idiot, and another very simple-minded. One of the eyes was very small, with coloboma of the iris and choroid. The other eye was not to be seen, but was ultimately felt in the apex of the orbit. It was removed, and examined, no trace of the lens or retina being found.

Other cases were cited.

In discussion, Dr. Vail reported the case of two families, the parents being cousins. Out of the seven children, five had congenital cataract. Continuing the discussion, Dr. Alt reported congenital cataract in two children out of four in a family where the parents were first cousins. In Southern Illinois is a large family who have intermarried for a long period. There is a large number of cases of cataract in the family, both senile and congenital.

Mydriatics in Refraction of Presbyopes.

O. A. GRIFFIN (*American Journal of Ophthalmology*) remarks that the statement, frequently made, that it is not necessary to correct the smaller degrees of astigmatism in presbyopics, is incorrect. If it is necessary to correct an ametropia at all, it is necessary to do it completely, thus relieving all strain. He quotes several cases from his own experience where glasses ordered without a mydriatic did not give the patient comfort. Mydriatics were then used, thus unmasking the smaller degrees of astigmatism, and the patients were then completely relieved. In the discussion which followed, the ophthalmologists present were by no means unanimous in their views; two holding that the use of a mydriatic in a patient over the age of 45 is useless, three holding that mydriatics should be used in most of presbyopia cases. Dr. Griffin, in closing the discussion stated that the correction of one-quarter to one-half diopter of astigmatism is necessary to give comfort to many patients. Often this amount of astigmatism cannot be discovered without a mydriatic. Therefore, in presbyopes with such an amount, it is justifiable to use a mydriatic. Where the correction of one-quarter diopter gives an aged person comfort, which lasts for years, it can not be due to imagination.

LARYNGOLOGY AND RHINOLOGY.

IN CHARGE OF J. PRICE-BROWN.

A Case of Paraffin Injection into the Nose followed immediately by Blindness from Embolism of the Central Artery of the Retina—(HURD, L. M., *Medical Record*, July 11, 1903.)

In this case paraffin was injected beneath the skin of the nose on three different occasions. The third time a mixture of paraffin and white vaseline was injected at a temperature of 110° F., the direction being from below upwards. At the moment of injection, the patient rubbed his right eye, and stated that he could not see. A little later ecchymosis appeared about the tip of the nose, indicating that a vein had been punctured. The eye was examined twenty-five minutes after the injection, when it was discovered that the inferior branch of the central artery of the retina was empty and collapsed. Medical treatment and massage of the eyeball were resorted to, but no return of vision followed.

Trepanation of the Maxillary Sinus by way of the Inferior Meatus—(VAQUIER, *Archives Internationales de Laryngologie*, July-August, 1903).

The author recommends Eschat's modification of Claoue's method. He removes the anterior portion of the lower turbinate, and by means of a burr of eight to twelve millimetres, driven by an electro-motor, the cavity is entered. The opening is then enlarged by cutting forceps. The sinus is next curetted and treated antiseptically. Cure is said to take place in one or two months.

Tertiary Lesions in the Naso-pharynx—(DIEN, *Revue Hebdomad. de Laryng.*, September 19, 1903.)

The writer divides gummata in the naso-pharynx into two classes. First, those beginning in the periosteum, etc.; second, those beginning in the mucosa; and it is the latter class that he deals with in his paper. The principal symptoms after the disease becomes well marked are nasal obstruction, more or less deafness, usually unilateral, dysphagia and headache. The intensity of each symptom varies with the position of the gumma and the extent of ulceration.

By the use of the rhinoscopic mirror, a gumma may require to be differentiated from naso-pharyngeal fibroma, sarcoma, tuberculous abscess, cyst of the vault, and acute adenoiditis.

Fibroma and sarcoma both may occur early in life, a period when tertiary syphilis is rare. Fibroma is often extremely hard and bleeds readily. Sarcoma grows quickly and also

bleeds readily. Often the diagnosis from these two can only be settled by antisyphilitic treatment. In syphilis, however bleeding is rare.

Tuberculous abscess is distinguished by its extreme pallor. A cyst can be diagnosed by palpation. From adenoiditis, syphilis is distinguished by lack of fever. The pharyngeal tonsil is red and covered with muco-pus.

When ulceration of the gumma commences, it is usually gradual, the edges are slightly swollen and punched out with rounded outlines, while the surrounding area is normal in appearance. Treatment must be by antisyphilitic medication, and to be successful should be commenced early and continued for a prolonged period.

Contribution to the Study of Acquired and Congenital Perforations of the Soft Palate—(Broeckaert, *La Presse Oto-Laryngologique Belge*, September, 1902.)

In a study of the etiology of these perforations, reference is made to eleven cases of congenital symmetrical perforation of the anterior pillars of the fauces; also to several instances of unilateral perforation: and to a less number in which the posterior pillars were alone involved.

Congenital anomalies of this nature, although usually symmetrical, are not necessarily so. The writer also believes that these perforations are not due to arrest of development, but to defect in formation, having its origin probably in vascular lesion.

Non-congenital cases, although few in number, have a varied etiology, and are always unilateral. They may be due to peritonsillar abscess, or to necrosis from the action of toxins—the sequel of scarlatina, typhoid, diphtheria, syphilis or tubercle.

In one case, Monro's, bacteriological examination showed the destruction of tissue to be due to the pneumococcus. In another case, the result of scarlatina, the perforation of the left anterior pillar was accompanied by paralysis of the left side of the palate and complete nerve deafness. (The abstractor has had two cases of perforation of the soft palate, internal to the posterior pillar, each being the result of gumma in tertiary syphilis. One occurred in a man aged 45, the other in a woman aged 38 years.)

Preliminary Note on the Treatment of Lupus of the Upper Respiratory Tract by Rhadium—(Delsaux, *La Presse Oto-Laryngologique Belge*, August, 1903.)

"A small bulb, hermetically sealed, containing 20 milligrammes of bromide of rhadium was fastened to a metal collar. When screwed to the extremity of a straight or curved metal

stem with a handle, this formed an instrument for introduction into the nose and throat."

Each application was limited to one minute, gradually increasing to five. The first effect observed was anemia of the diseased surface adjacent to the bulb, the patient feeling a slight sensation of constriction. After the sixth application edema of the epiglottis set in, subsiding under simple treatment. Simultaneously the other affected parts showed marked reaction. Consequently the daily applications were limited to forty-five seconds. Nineteen seances had been made in all; and the author considered the beneficial results to be greater than from the application of any other known agent.

Editorials.

FEDERATION OF TORONTO AND TRINITY UNIVERSITIES.

The official announcement of the federation of the University of Trinity College and the University of Toronto was formally made in the *Ontario Gazette*, November 28th:

"The agreement determining the basis of federation provides for a definite separation of the revenues and expenses of the University from those of University College; for the procedure to be observed in case of the unwillingness of the Government to make up the deficiency in revenues in any given year; for the regulation of fees; for the application of Theological Options; for the duplication of University Lectures in Trinity College, the procedure in case of dispute, and the payment of such duplication by the Government as a permanent charge; for the transference of two professors and a lecturer from the staff of Trinity College to that of the University; for the gratuitous allotment of a site in the Queen's Park for a building to be used by the students of the college, and in the meantime, for their free use of rooms in the University until such a building is erected; for the admission of graduates of the College to the status of University graduates; for the appointment of examiners by the College; for the amalgamation of the Faculties of Medicine, and the conditions governing it; for common action in urging the Government: (1) to extinguish the charter of the Toronto School of Medicine, and to refuse incorporation to any other school of medicine; (2) to require the hospitals of Toronto which receive Government aid to afford facilities for clinical teaching; (3) to endow chairs of Sanitary Science and Preventive Medicine."

THE LATE MISS HICKMAN, M.D.

The mysterious disappearance of Miss Hickman, a physician, of London, England, more than three months ago, created quite a sensation. She was appointed one of the resident assistants in the Royal Free Hospital, and was apparently in good physical health. She suddenly disappeared, leaving no clue as to her fate. Week after week passed, but nothing was discovered for

two months, when her dead body was found in a lonely part of the Sidmouth Plantation.

After careful investigation and examination, the coroner's jury returned the following verdict: "We find that on October 18th Sophia Frances Hickman was found dead in the Sidmouth Plantation, and that she died from morphine sulphate, self-administered at a time when she was temporarily insane." It was made quite clear from the evidence at the inquest that Miss Hickman, although in fairly good health, was not mentally in a fit condition to assume her comparatively slight responsibilities in the hospital.

The *British Medical Journal*, in its comments on the sad case, refers to certain lay journals which assumed that the proper moral to be drawn from it was that women should not be exposed to such a strain as that to which Miss Hickman was exposed. The *Journal* very properly expresses the opinion that such a contention is not justified, as many male physicians have broken down under similar circumstances.

The *Journal*, in conclusion, says: "The sympathy of the public, and of the medical profession, will be with the sorrowing family left to mourn the loss of daughter and sister, whose affectionate disposition all unite in praising. There is one small measure of consolation in this case, and that is that the mystery which engaged the attention of the world for so long has now been cleared up, and that the suggestion of foul play which was made repeatedly, even by members of the medical profession, is now proved to have had no foundation."

PUBLIC HEALTH DEPARTMENT.

There is a strong feeling prevalent in the medical profession that a Department of Public Health should be created by the Dominion Government and administered under the authority of one of the Ministers. In the resolution unanimously passed at the last meeting of the Canadian Medical Association, which we publish in this issue, it is pointed out that it is anomalous to have matters pertaining to public health spread throughout four or five departments of the Dominion Government. It is also correctly stated that Canada is not preserving her proper

status among nations in this branch of the public service. These are plain facts which probably no one will think of denying. The establishment of a Public Health Department would also undoubtedly be in the best interests of the public welfare of Canada.

CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

The officers of this very important association are again making an urgent appeal for membership. The annual statement at the London meeting of the Canadian Medical Association showed that the membership is still so small that there is grave danger of actual collapse. No argument is necessary to show that this would be a sad calamity. The appeal for membership by circular letter has thus far been followed by unsatisfactory results.

We should suggest that the officers of the various local medical societies take the matter up, and assist the parent association in greatly increasing the membership. Will the executive officers of the three medical societies of Toronto set a good example and start the ball rolling?

A REASONABLE SETTLEMENT.

It has been a matter of regret in the past that there have been strained relationships between the French and English-speaking physicians of the Province of Quebec which have been largely due to mutual misunderstandings. We have been told of many men who have carefully studied the differences between the two classes that mutual distrust is rapidly disappearing and that the French and English will soon agree on matters pertaining to the medical welfare of the whole Dominion.

We were much pleased in this connection to read an article in the November issue of the *Montreal Medical Journal* under the above heading—"A Reasonable Settlement." It was for months feared, on account of the attitude of the College of Physicians and Surgeons in July last, that the "cours classique

complet," as a preliminary to the entrance examination, would be enforced on all candidates—Protestant and Catholic alike. Quite unexpectedly, however, at the meeting of the College in September an amendment excluding Protestant candidates from the operation to the law which was objectionable to them was accepted.

The *Montreal Journal* goes on to say:

"We make haste to add that this was done in a spirit of perfect fairness and courtesy, which was duly appreciated and acknowledged at the time by the Protestant members of the board. There had evidently been a misunderstanding on both sides, and the satisfactory settlement of the question removes the only grave source of friction between the majority and the minority of the board. Both French and English have to live together, and all signs point to an increasing toleration of the views held by each where they can not be completely reconciled. We shall not be mistaken if we add that the time is at hand when all the elements of the board will operate as a unit for the welfare of medical education and practice. This latest concession, so gracefully made, has materially advanced the interests of all parties."

A CURE FOR TUBERCULOSIS.

We learn from the *Medical Magazine* of England that Prof. Von Behring, of Marburg University, who has for several years past devoted much time to the task of combating tuberculosis in cattle, delivered a remarkable address at the recent meeting of Natural Philosophers and Biologists held at Cassel. He claimed to have discovered some time ago a system of inoculation which serves to produce immunity from tuberculosis, the complete extinction of which now depends only on the technically perfect application of the new method.

Another problem arises out of this discovery. Is the milk of the cow thus protected able to confer immunity? It appears to have done so in the case of many calves. The Professor hopes to make the milk thus rendered immune more efficacious in combating than any remedy which has hitherto been used. Many medical scientists are testing the merit of his theory by experiment. It is expected that a final report will be published and the remedy made accessible to all as soon as the conditions

and limits of therapeutical action in babes of milk rendered immune are scientifically established.

Tuberculosis infection, Prof. Von Behring says, does not always lead to consumptive disease ; and he hopes by a rational method to be able successfully to combat that form of infection which finally causes consumption. He also expresses a belief that in the near future all hospitals and homes for consumptive patients will become unnecessary through means similar to those which Jenner used to render small-pox hospitals superfluous.

MEANS OF PROLONGING LIFE.

Sir Herman Weber, M.D., F.R.C.P., in a lecture delivered before the Royal College of Physicians of London, discussed this interesting subject very fully. Although he had no elixir of life to offer, or, in fact, nothing new to say on the means of prolonging life, yet he formulated concisely the rules of personal hygiene which centuries have shown to make a hardier and sturdier manhood. As Sir Herman is past the three score mark, descended, as he told his hearers, from five generations of gouty ancestors, yet with only the slightest tinge of it himself, his views on the matter are worthy of attention.

From a careful analysis of more than 100 cases of very long-lived persons, he came to the conclusion that the majority of them were temperate, lived much in the open air, ate little meat, led an active life (many of them a life of toil and privation), and a great number of them were of a joyful disposition. A good heart and good blood-vessels were absolutely essential, and *ceteris paribus*, the chances of a person of long-lived stock were much better than those of one descended from an ordinary family. Yet, longevity is not necessarily transmitted from father to son.

Among the means for procuring this end he mentions exercise, and walking as the most natural form of it, to be indulged in from one half to two hours every day, in all kinds of weather—" never a whole day at home," as Moltke said. Respiratory exercises are also extremely useful in improving the heart's nutrition. For those of the gouty diathesis the tension exercises are very beneficial.

The body is not a machine, made of dead substance like wood or leather, but of living organs and tissues capable of repairing themselves, and hence not suffering from work, so that Martin Luther's motto "*Rast ich, rost ich*" (if I rest, I rust), is perfectly true. Therefore, Sir Herman recommends regular exercise, with a week-end holiday in the open air, when the patient spends four to six hours in more vigorous exercise than usual. Still more beneficial is the plan of taking once or twice a year a walking or a climbing tour of three or four weeks in mountainous districts, especially on glaciers, with three to six, or occasionally even eight hours' active walking or climbing on most days of the week, provided that the organs of the body are free from disease, and that they be gradually accustomed to the increased work.

Attention to the digestive system and food is almost as necessary for the promotion of longevity as that to the circulatory and respiratory systems. Great moderation in the amount of food, and especially of the most nourishing articles (flesh food and pulses) ought to be practised by everybody, particularly by old people, and is a great aid to longevity. "Essentials among primitive people," says Sir Wm. Temple, "are great temperance, open air, easy labor, little care, simplicity of diet, rather fruits and plants than flesh." In old age the amount of food ought to be very limited, gradually lessened in quantity, and lowered in quality. In the majority of cases, increase of weight after 70 or 75 is not good.

With regard to alcohol there is a popular but fallacious idea that it is most useful to old people, in fact, that "wine is the milk of the aged." Persons with small amounts of albumen in the urine, combined with signs of arterio-sclerosis can, with great restriction in alcohol and meat, prolong their lives considerably. The average duration of life is greatest in total abstainers.

Tea, while not injurious to the majority, may in some patients produce disturbance, and is, perhaps, always an inhibitor of salivary digestion.

Equally important with the organs of circulation and digestion is the nervous system. The brain often decays from want of physical exercise or mental work. To prevent this, lies the use of a hobby, which every man should cultivate while still

in middle life. Many old people derive great benefit from chess, cards, and other intellectual games. Then, too, we must endeavor to cultivate a merry heart. In order to promote cheerfulness and avoid mental depression it is of great importance to educate the sense of duty, restrain the passions and cultivate the will.

While each individual differs greatly in the amount of sleep required, the habit of sleeping too little is less frequent than that of sleeping too much, and nothing is more pernicious than an excess of sleep.

The daily bath is absolutely essential to the health of the skin, especially in old people, the mode of it being left to individual taste, so long as the rubbing gives the skin a gymnastic exercise.

Travelling is a great promoter of longevity by increasing mental activity, and for those who find certain seasons too rigorous, a temporary change of residence to a milder climate may do untold good.

DR. TEEFY'S REPLY TO THE TOAST OF ALMA MATER AT THE ARTS DINNER, UNIVERSITY OF TORONTO.

Alma Mater—Mother benign—how sweetly, how strongly does that term with this epithet, express the delicate relationship between the student and the college or university. Fruitful, strong, prudent, the university nourishes the young, heals the weak, guides the timid and overmasters the potent. With all strength and light of life it leads to higher and better things. Then Alma Mater's duty is more to direct, to mould and form the character than teach all subjects, or the whole of one given subject. Here are formed those friendships which strengthen in enthusiasm, rivalry and affection of youth, which grow with years, and are broken only by the separation of death. Here is a little world in which youths and professors seek the treasures of learning and science, forming a republic whose atmosphere is clearer and whose influence can never be estimated.

The university is something else than a labcratory of original research, although opportunity should be afforded to advance in that direction. Nor is a university the same in character as the academies, which we read of in France or Italy, nor yet the

British Association for the Advancement of Science. According to Newman, it is a place where all subjects are taught; and, according to Virchow, it is a school of general scientific and moral culture, together with the mastery of one special part. But whatever may be its scope, the true and living philosophy is its first and most pressing need and means of discipline. Where this is lacking there is no university. Practical science, physical science, medical science, domestic science may all have their day, and aid largely in the material comfort of the multitude. They cannot satisfy the unquenched thirst for knowledge, nor can they give the answer to that question which lies deepest within the soul. If this is the bread which Alma Mater is to break for her children, then it is not even the crumbs that fall from the rich man's table. You cannot reject the spiritual, the moral, the higher objects of knowledge and be true to the motto which stands over against the western wall of this hall. If such be the only one in this house of learning, Alma Mater can never fulfil her purpose in this young country. She may advance material comforts. She must have something more in her treasury than mere utilitarianism and materialism if she is going to protect society or properly endue the rising generations with these principles, which alone can be the salvation and guardian of the individual, the family and the country.

Sciences are not blocks of wood, each one constituting by itself an integral whole. They co-ordinate together, and one cannot be removed without injury and without the effort being made to falsely supplement it by an inferior article. The soul is a potential totality, and the virtues and sciences are of mutual support to one another, beautifying and strengthening it, edifying it. Even the old Roman orator, before the Christian era, spoke of the common bond which united all the arts pertaining to humanity. Still more is it the case since that Light has come down which gives coloring to all our thought and which enlighteneth every man that cometh into the world.

Here, then, in this university, when, as I think it will be, properly formed, and as I hope it will be, science will find its home, its refuge, and its protection. In those days Canadian youth like yourself will come to this fountain of learning and separate each to his own college hall for instruction in the higher sciences which must ever hold the first place, and must ever have the telling influence on our lives and the well-being of a country.

American Congress on Tuberculosis.

The next American Congress on Tuberculosis will be held on October 3, 4 and 5, 1904, at St. Louis, under the presidency of Dr. E. J. Barrick, of Toronto.

ANNUAL MEETING OF NATIONAL SANITARIUM ASSOCIATION.

The sixth annual meeting of the trustees of the National Sanitarium Association was held in Toronto, November 21st. Among those present were: Sir William R. Meredith, Hon. Geo. W. Ross, W. J. Gage, Hugh Blain, J. J. Crabbe, Dr. N. A. Powell, Fred Roper, Dr. J. H. Elliott, physician in charge of the Muskoka Cottage Sanitarium, and J. S. Robertson, secretary of the association.

The reports of the secretary, auditor, physician-in-charge, respectively, of the Muskoka Cottage Sanitarium and the Muskoka Free Hospital for Consumptives, were of a very gratifying character. The year has been one of great progress. The number of patients in residence at the Cottage Sanitarium has been the largest in the history of the institution, running latterly from 65 to 69 each week. New roofed tents are now being built to bring up the accommodation of this institution to 75. The medical results attained were very satisfactory.

The present is the first complete year of the Free Hospital for Consumptives in Muskoka. The number of patients treated during the year totalled 163, and since the opening of the hospital the number is 224, mainly from the wage-earning classes, 57 different occupations being represented. The number of free patients maintained during the year was 37. Of those who paid in part for their maintenance, the daily average amount per patient received from individuals or municipalities was 34c.

The financial report for the Free Hospital for the year shows that there was a shortage of $13,634.51. In response to the appeals for contributions, $10,375.96 was received during the year, making the net shortage for the year $3,258.55. Not less than $20,000 must be subscribed this year if the Free Hospital is to care for all patients for which it has provided accommodation. During the past year, because of the shrinkage in subscriptions, the management were obliged to close certain wards

ST. BARTHOLOMEW'S HOSPITAL.

At a General Court of Governors of St. Bartholomew's Hospital, held on November 5th, the following resolutions were carried, namely:

1. That this court has come to the following conclusions, namely:

(*a*) That it is impossible, in the public interest, to remove the hospital from its present site.

(*b*) That the additions to and rearrangement and improvement of the existing buildings are absolutely necessary.

(*c*) That an appeal to the public to supply the cost of the requisite new buildings and improvements is fully justified.

2. That in the general scheme for rebuilding provision be made for—

(*a*) Additional operating theatres.

(*b*) New casualty and out-patient departments.

(*c*) New nurses' home.

(*d*) New quarters for the resident medical and surgical staff.

(*e*) An isolation block and other new ward blocks to supply the place of those to be demolished.

(*f*) New mortuary, *post mortem* rooms, and pathological department.

(*g*) Internal structural rearrangement of the east, west and south wings of the hospital.

3. That the first block to be built be the new casualty and out-patient departments, dispensary, etc., and the new operating theatres; that the nurses' home be next built, and that the remaining blocks be built in such order as, having regard to their relative urgency, may be considered most expedient and convenient for the general work of the hospital.

4. That the medical staff be consulted from time to time on all details that affect the sanitary arrangements, the treatment of the patients, or the interests of the medical school.

CANADIAN MEDICAL ASSOCIATION AND A FEDERAL DEPARTMENT OF PUBLIC HEALTH.

Resolution re Department of Public Health.

At the thirty-fifth annual meeting of the Canadian Medical Association, the largest and most representative meeting of the Canadian Medical profession up to that time, and which was held in the city of Montreal on the 16th, 17th, and 18th of September, 1902, the following resolution was proposed by Dr. E. P. Lachapelle, Montreal, and seconded by Dr. J. R. Jones, of Winnipeg:

Whereas, public health with all that is comprised in the term sanitary science, has acquired great prominence in all civilized countries; and

Whereas enormously practical results have been secured to the community at large, by the creation of Health Departments under governmental supervision and control, and

Whereas greater authority and usefulness are given to health regulations and suggestions when they emanate from an acknowledged government department,

Therefore be it Resolved,—That in the opinion of the Canadian Medical Association, now in session, the time is opportune for the Dominion Government to earnestly consider the expediency of creating a separate department of public health, under one of the existing Ministers, so that regulations, suggestions and correspondence on such health matters as fall within the jurisdiction of the Federal Government, may be issued with the authority of a Department of Public Health. That copies of this be sent by the General Secretary to the Governor-General in Council and to the Honorable Minister of Agriculture.

This resolution was strongly supported by Dr. T. G. Roddick, M.P., the Hon. Senator Sullivan, Kingston, and other prominent and influential members of the Association and carried unanimously.

The President of this Association, Dr. Walter H. Moorhouse, of London, Ontario, then appointed the following special committee to take the matter in hand and report at the annual meeting which was held in London, on the 25th, 26th, 27th and 28th days of August 1903. Dr. R. W. Powell, Ottawa (Convener), Dr. T. G. Roddick, M.P., and Dr. E. P. Lachapelle, Montreal. This Committee reported through Dr. Powell to the Association at London on the 26th day of October, as follows:

Report of Special Committee.

Ottawa, August 24th, 1903.

To the President and Members of the Canadian Medical Association:

Gentlemen,—Your Committee, consisting of Dr. T. G. Roddick, M.P., Dr. E. P. Lachapelle and Dr. R. W. Powell, convener, acting under instructions from your President, had the honor to wait upon the Prime Minister to present to the Government the resolution passed at the last meeting of your Association on the question of the creation of a Department of Public Health under one of the existing Ministers. The whole matter was gone into thoroughly, and your committee endeavored to press upon the attention of the Government the great desirability and importance of placing all matters included under the term "public health," with which the Dominion Government has to do upon a higher basis than now obtains.

It was pointed out that this Association representing the whole Dominion, in which there are over 5,500 practitioners

had concluded that it would be in the best interests of the general public welfare of the Dominion that such should be done, and that the time had come when Canada should be elevated from the entirely secondary place she now occupies among the nations in this branch of the public service, and that she should at once have a status conferred by Parliament whereby all questions relating to sanitary science and public health should be dealt with from a central authority, to be known as the Public Health Department.

Many matters of detail were not particularly discusssed at the interview inasmuch as your committee felt that their duty consisted chiefly in pressing upon the Government the main idea by endeavoring to show that the present system of having the various subjects scattered throughout several departments, with consequent multiple division of authority, was not calculated to impress the public with the great importance of the administration.

Your committee, moreover, insisted strongly that our profession was a strong, active body of earnest workers, and their number and influence entitled them to this consideration, which was for the public welfare, and not in any way directly or indirectly for their personal benefit, and finally it was pointed out that the skeleton of this plan is already well laid, and a Director-General of Public Health holds an appointment to-day, an earnest, hard-working, able official at present issuing his orders in *re* quarantine from the Department of Agriculture, which is an anomaly *per se*, and lessens the authority in a measure, and yet he has nothing to say as regards sick seamen, sick Indians, adulteration of food, vital statistics, and has no laboratory under his control.

The Prime Minister was most courteous, and listened patiently to the arguments set forth, and finally authorized Dr. Roddick to place a resolution upon the order paper, with a view to having a discussion in Parliament before the Privy Council took up the matter in earnest.

Sir Wilfrid Laurier also stated that, in the absence of the Minister of Agriculture, who was familiar with the whole question, he would not willingly go into the matter at greater length with a view to legislation, in the Minister's absence.

Dr. Roddick's resolution was as follows:

"That it is expedient in the public interest to constitute a Department of Public Health for the Dominion, charged with the execution of the various duties which are, or may be, imposed upon or assumed by the Government, for the protection of the public health, and the prevention and mitigation of diseases, and that such Department of Public Health be administered under the direction of a Minister of the Crown in

conjunction with one of the existing Departments of the Government."

On the return of the Minister of Agriculture from Japan, your committee was again convened, and waited upon him, when the subject was again carefully gone into. The committee feel they have a warm advocate in Mr. Fisher, who is thoroughly alive to the necessities of the case, and if his colleagues in the Government would carefully consider this matter, and the justice and importance of the claim for consideration we as a profession are making, they would readily acquiesce. Some difficulties naturally stand in the way, and some difficulties are easily introduced into the way, but a way can be found for this measure to be put through, as has been found for other measures, and will be found for future measures, if only there is a willingness on the part of the Government to place this matter in the position it ought to occupy. Let me say that Parliament is still in session, and, therefore, it may yet transpire that the final decision of the Government may not be adverse, and the delay will be found to be due only to the great strain of urgent public business of weightier moment.

Your committee express the hope that their efforts have not been entirely in vain, and they beg to report that in their opinion the profession as a whole must continue to press their claims for a proper recognition of this question at the hands of the Government by influencing all those with whom they may come in contact, and moreover by continuing to further influence public opinion by definite announcements from time to time in the form of resolutions emanating from this parent Association, and others of a like character throughout the Dominion.

Respectfully submitted on behalf of your Committee,

(Sig.) R. W. Powell, *Convener.*

Dr. I. H. Cameron, of Toronto, a past president of the Association, moved the adoption of this report, which was done unanimously after a full and extended discussion. Dr. Adam H. Wright, Toronto, then presented the following resolution, which was seconded by Dr. H. H. Chown, of Winnipeg:

Resolution *re* Public Health Department.

Moved by Dr. Adam H. Wright, Toronto, and seconded by Dr. H. H. Chown, Winnipeg, that

Whereas, this Association at its meeting in Montreal, in 1902, placed itself on record by resolution to the effect that it is expedient that a Department of Public Health be created by the

Dominion Government, and administered under the authority of one of the existing Ministers of the Crown;

It is further Resolved at this meeting to again press upon the attention of the Government that Canada is not preserving her status among the nations in this branch of the public service, and that it is anomalous to have the various matters connected with the administration of public health so far as it appertains to the Dominion Government spread throughout four or five departments.

It is further Resolved,—That in the opinion of this Association, the profession of medicine in the country, being actuated in this matter solely in the best interests of the public welfare, and with an earnest wish to place Canada on a par with other civilized countries, is entitled to expect that the Hon. the Privy Council of Canada will, at an early date, take this question into its best consideration, so that by the time our Association meets again in the autumn of 1904, we will be made officially acquainted with a decision.

That a copy of this resolution be transmitted by the Secretary to the Right Honorable the Prime Minister, to the Honorable the Minister of Agriculture, and to the Honorable the Privy Council of Canada, through the Hon. R. W. Scott, Secretary of State.—Carried unanimously.

Dr. S. J. Tunstall, Vancouver, B.C., the President-elect, has re-appointed this special committee, with instructions that they prosecute the matter still further, and be able to present at the next annual meeting in Vancouver, in 1904, a more favorable report.

GEORGE ELLIOTT, *General Secretary.*

TORONTO, December 1st, 1903.

Personals.

Dr. James Paterson, of Buffalo, spent his Christmas holidays in Toronto.

Dr. Leonard Vaux, of Ottawa, visited Toronto in the latter part of December.

Dr. Thomas McCrea, of Baltimore, paid a visit to Toronto during Christmas week.

Dr. James A. Dickson, of Hamilton has been appointed Coroner for Wentworth County.

Dr. J. Ephraim Elliott, of Toronto, has removed from Church Street to 69 Bloor Street East.

Dr. Thomas McCullough (Trin. '84) of Chatsworth, has been appointed Coroner for Grey County.

Dr. C. B. Richardson, of Toronto, has removed from 10 Carlton Street to 128 Bloor Street West.

Dr. W. R. Alway (Tor. '97), of Waterford, has gone to England and is doing post-graduate work.

Dr. D. A. Sinclair (Tor. '03) has gone to England where he is engaged in post-graduate work.

Dr. O. Klotz (Tor. '02) has been appointed to a fellowship in pathology in McGill University, Montreal.

Dr. Angus Ego (Tor. '87) has been appointed Physician to the House of Refuge in the County of Grey.

Dr. J. Orlando Orr left Toronto for New York, December 28th, and remained in the latter city about two weeks.

Prof. W. R. Lang, of Toronto, has been made a Fellow of the Institute of Chemistry of Great Britain and Ireland.

Dr. W. J. Robinson (Tor. '83) has been appointed Medical Health Officer of Guelph in the place of Dr. Howitt, resigned.

Dr. Percival Bollen (Tor. '91) is still practising at Semaphore, South Australia. He sent Christmas greetings to all his Canadian friends.

Dr. J. O. Todd, of Winnipeg, has been appointed Professor of Astronomy in the University of Manitoba in the place of the late Dr. Neilson.

Dr. John W. Scane has been appointed Registrar of the Faculty of Medicine of McGill University, in the place of Dr. Von Eberts, resigned.

Dr. Helen MacMurchy (Tor. '00) has been appointed Consulting Physician and Lecturer on Physiology and Hygiene Branksome Hall, Toronto.

Dr. McLaren has resigned his position as superintendent of the Hamilton General Hospital, and Dr. W. F. Langrill has been appointed to succeed him.

Dr. J. Bryce McMurrich (Trin. '96), of Bothwell, spent his Christmas in Toronto with his parents, Mr. and Mrs. George McMurrich, of Madison Avenue.

Dr. S. H. Westman (Tor. '96), of Toronto, sailed from New York, December 19th, for London, England, where he intends to take a special course in surgery.

Mr. E. G. Swift, formerly manager of the Canadian branch, has been appointed General Manager of the Parke, Davis & Co.'s business in the place of Mr. Warren, deceased.

Dr. Frank Warren, of Whitby, sustained a fracture of the humerus, November 18th, the result of a runaway accident, and on the following day came to the Toronto General Hospital for treatment.

Dr. James Stewart, of Montreal, has nearly recovered from his recent attack of septicemia, but is not yet considered fit for active work. He has gone to Egypt where he will spend the remainder of the winter.

Dr. J. Nisbet Gunn (Tor. '02), who has just returned from the Continent and London, has commenced practice in Clinton with Dr. W. Gunn. While in England he passed the combined M.R.C.S. and L.R.C.P. examinations of London.

Dr. Jas. F. W. Ross, of Toronto, sailed from Boston, December 5th, and reached Naples December 15th. After spending a week in the latter city he went to Alexandria. He expects to remain in Egypt a few weeks and will return to Canada about April 1st.

Dr. R. Y. Parry (Tor. '00), after spending some months in England, went to New York where he spent the greater portion of the year '03 at post-graduate work. He was called to his home, Dunnville, a few weeks ago on account of the last illness of his father. He expects to practice in Hamilton.

The latest reports respecting the condition of the German Emperor are favorable. We are told by the *British Medical Journal* (Dec. 19), on what it calls absolutely trustworthy authority, that the cure of the local ailment is practically complete. The voice is clear and resonant, and only a slight change of timbre is noticeable.

Dr. J. C. Mitchell, formerly of Enniskillen, now a member of the staff of the Toronto Asylum for Insane, has been appointed Medical Superintendent of the Provincial Epileptic Hospital, now being erected at Woodstock. The new building will not be completed until next summer, and leave of absence will be given to Dr. Mitchell this winter to allow him to visit institutions of this sort in other countries.

Dr. C. Harold Bird, of Gananoque, is being sued by Joseph Church, who claims damages for "medical negligence" in connection with the treatment of his son, Henry Church, aged 8. There was small-pox in the town, and Dr. Bird vaccinated about 250 children, among them being Henry Church. Dr. Bird did not see the boy, Church, for about four weeks after the vaccination when he found him suffering from tetanus which caused his death in three days thereafter.

Dr. George W. Badgerow (Tor. '94), who has been in London, England, during the last three years, has been resident surgeon in the Golden Square Throat, Nose and Ear Hospital since last summer. He paid a short visit to Toronto in December, but returned to London, sailing from New York on the *Teutonic* December 23rd. He expects to return to Toronto next spring when he will commence special practice in diseases of the ear, nose, and throat.

Obituary.

GEORGE COOK, M.D.

Dr. George Cook, of Toronto, died at his late residence 26 Leopold Street, December 31st, aged 62. He was graduated M.D., Victoria, in 1864, and practised for many years in Chesley, Bruce County. A few years ago he moved to Toronto, where he lived in comparative retirement.

DR. DAVID SOVEREIGN BOWLBY.

Dr. David Sovereign Bowlby, of Berlin, Ontario, died at Rome, December 27th, aged 77. He had been in poor health for some weeks, and on that account sailed from New York for the Mediterranean, December 16th. He became worse during the sea voyage, and died shortly after he reached Italy. He practised medicine for fifty years in Berlin, and was highly successful in all respects.

OWEN C. BROWN, M.B.

Dr. O. C. Brown (Tor. 74), for many years Grand Trunk Surgeon at Acton, Quebec, and in recent years a practitioner in Detroit, died in the latter city, December 31st.

ROBERT McINTYRE, M.D.

Dr. R. McIntyre, of Hespeler (Victoria, '62), died suddenly in the house of a patient, January 4th. He had practised in Hespeler for forty-one years, was Medical Health Officer of the town for forty years, Public School Trustee for seventeen years, surgeon to the Twenty-ninth Battalion for twenty years, President of Liberal-Conservative Association of Hespeler for several years, and held several prominent positions in the Methodist Church. He was highly successful as a physician, and greatly respected as a citizen.

DR. JOHN HERBERT TROUT.

Dr. John Herbert Trout (Tor. '00) died at Dubuque, Iowa, November 1st.

MR. WILLIAM MATTHEW WARREN.

Mr. William Matthew Warren, who entered the service of Messrs. Parke, Davis & Company, when a lad of seventeen, in 1881, and became General Manager in 1896, died, November 11th, aged 39.

FRED H. S. AMES, M.D.

Dr. Fred Ames died at his late residence, Denver, Colorado, after a long illness, January 4th, aged forty-five. After going through the regular course in the Toronto School of Medicine, he graduated M.B. Tor., and M.D. Vict., in 1880. After practising a few years in Brigden he removed to Sarnia, and from there to Denver about ten years ago. The remains were interred at Sarnia, January 9th.

The Canadian Practitioner and Review.

VOL. XXIX. TORONTO, FEBRUARY, 1904. NO. 2.

Original Communications.

THE MEDICO-LEGAL AUTOPSY.

By G. SILVERTHORN, M.D., Toronto.

Autopsies are performed for two especial purposes: Firstly, in order to ascertain facts from a scientific standpoint, and secondly, for discovery for legal purposes.

With the first I shall not now deal, but I must say that there is no hard and fast lines between them, for every autopsy has some scientific interest, and it may be that the chief interest, from a scientific point, is not directly connected with the cause of death, whereas in the second class the main object is to arrive at the actual cause of death and how this cause was set in motion, along with a host of other questions that may arise, such as identification, time elapsed since death, the circumstances attending the death, etc.

I do not propose to enter into the usual order or method of performing a post-mortem, but wish for a few minutes to occupy your time as to a few of the especial features to be observed in a medico-legal autopsy.

It is well in the first instance to ascertain from the coroner or some other person, whether the question of identification is likely to arise, for if not, you may avoid much unnecessary detail such as a minute description of the clothing, minute examination of the teeth, bones for old fractures, moles, naevi, scars, etc. If it is possible to have some idea of the questions which will arise, it often simplifies matters very much.

The first duty of the examiner may be an examination of the surroundings of the body for blood-stains, foot-marks, signs of a struggle, etc., but this duty as well as a search of the clothing is usually performed by the police or coroner.

* Read at Meeting of Ontario Medical Association.

In any case, however, where the body is clothed in ordinary wearing apparel the clothing should be carefully examined and kept for future investigation, if found necessary, and if blood stains are suspected, the clothing or other articles should be removed to another place before the post-mortem begins, in order to avoid any possibility of the stains being produced after the body is opened.

Then should follow a thorough examination of the body externally, also of the orifices, with a more or less detailed description of the body as a whole and a minute and clear description of any external injuries; and here, as in the internal examination, one must remember that artificial light is very deceptive in regard to colors such as jaundice, stains of nitric acid, etc.

From this point on, the method of procedure varies as to the class of cases we have to deal with, and I intend to consider only two of these, namely, wounds and poisons.

In regard to wounds the direction of the same should, if possible, be made out accurately, and their correspondence with cuts and tears in the clothing should be accurately determined. The condition of the parts, whether gaping or not, should be investigated, as well as the condition of the tissues, to determine whether the wounds were made ante or post mortem and their condition as to healing, to determine how long a time has elapsed since their infliction.

Should a wound extend deeply, it is best to approach the deeper parts not directly by enlarging the wound and following it from the outside, but by opening any cavities, supposedly penetrated, from a point some little distance away from the wound and then ascertaining the condition of the parts within, assisted by the introduction of a probe gently inserted through the wound, in this way varying the ordinary mode of procedure, so as to make the wound a pivot round which the rest of the examination centres.

One other point I wish to dwell on is the importance of stripping the dura mater from the bones at the base of the skull in all cases of injury, for only in this way can one be certain that a fracture of the base does not exist.

It is, of course, scarcely necessary for me to say that any unnecessary disfigurement of the body is to be avoided, but on the other hand we must not omit examining thoroughly and minutely any portion of the body that is likely to throw light on the question at issue. The condition of the various organs must be examined also in a thorough manner in order to complete your report.

In suspected poison cases great care must be taken in the examination of the surroundings, orifices, search of clothing,

etc., and the internal examination must be varied from the usual routine so as to afford to the chemist the best possible opportunities for the detection of the poison, and moreover, to determine in what organs the poison is located. To this end it is imperative that the organs be placed in separate jars, preferably new ones, cleaned under the supervision of the examiner, and sealed, labelled, delivered, and identified by the examiner as the proper ones and untampered with.

The abdomen should be opened first, the esophagus and duodenum ligated, stomach removed unopened, and transferred to separate jar and sealed. The intestine then double ligatured in several places, removed, placed in separate jars and labelled. Then the liver in a special jar, and then the kidneys also. If any urine is contained in the bladder it is advisable to remove it to a suitable receptacle and preserve it also. No preservative fluid should be used for these specimens, but if it is absolutely necessary, then the fact should be stated on the label and the amount and formula also stated.

The labels should also state whether there has been embalming fluid used or not before the post-mortem was done. Some advise the opening of the hollow viscera and preservation of the contents in order to examine the wall in a recent condition, but this always gives a chance for possible contamination of the contents and is in the majority of cases not advisable.

The possibility of poison in the stomach co-existing with a ruptured aneurism, a clot in the brain, or a diseased heart, must not be forgotten.

In connection with this paper I would like to say a few words in regard to two cases that have come under my observation illustrating the advantage of a thorough examination.

In regard to the first of these I must crave your indulgence because I have already published the case, but as some of you may not have seen it I shall read from the report of the case from the *Canada Lancet*, November 3rd, 1900, read before the Toronto Clinical Society, October 3rd, 1900.

On the left side, commencing one and five-eighths inches outside the nipple line and on a line with the nipple itself, was the external wound or wound of entrance. The bullet had fractured and punctured the fifth rib two and three-quarter inches from its junction with the cartilage. It then passed through the pleura and through the anterior angle of the upper lobe of the left lung, then through the pericardium, then along the left border of the heart, which it grooved up, and then passed backwards tunnelling the fat in the left auriculo-ventricular groove, then passed out of the pericardium and backwards through the posterior portion of the lower lobe of the left lung, and still backwards into the aorta and just

through the aorta opposite the ninth dorsal vertebra. From this point onwards the track of the bullet could not be traced, and although the most careful and thorough search was made of all the vertebre and tissues in this neighborhood the bullet was not to be found. After removing all the ribs and vertebre in the neighborhood and again replacing the organs in their original position and again searching without result, I was in a quandary, but at last the idea struck me that possibly the bullet had dropped back into the aorta after striking the posterior wall of the aorta against the vertebral column and in this way cutting the aorta and making what appeared to be a wound of exit. Following out this idea I searched the vessels down to the popliteal space in the right leg without result and was nearly dissuaded from continuing the search in the left leg, but on passing the probe down the femoral artery an obstruction was felt just below Poupert's ligament. I then excised the femoral artery and I here show you the specimen with the bullet in situ, tightly lodged in the artery just where it narrows after giving off the profunda. The bullet measures exactly a quarter of an inch in diameter, and is found base downwards with the anterior end somewhat deformed, produced, no doubt, during its passage through the rib.

I herewith present for your inspection the specimens from the case, the heart and artery with the bullet in situ.

In connection with this I should remind you that at the autopsy on the late President of the United States of America, the examiners failed to locate the bullet, but no doubt this is accounted for by the fact that they did not wish to disturb the body more than was absolutely necessary. Nevertheless this case illustrates the necessity of a thorough examination and the possibilities in regard to the track of a bullet.

Another and more recent case is one that presented itself a short time ago in which a man working on the unfinished roof of a four-story building, where his work compelled him to walk along planks laid on joists, was found at the bottom of the building inside with very severe injuries, from which he died very shortly after being removed to the hospital. It is to be remembered that in this building the floors were not sheeted as the building progressed, as is provided for in the City of Toronto.

At the autopsy it was found that in addition to a fracture of the right thigh and a fracture of the left arm, as well as a fracture of the base of the skull, that he had an injury to the face commencing at the chin to the right of the middle line, as a slight abrasion of the skin and a separation of the deeper tissues from the bone, so that they would slide on the bone. Then an abrasion of the skin directly upwards, as far as the lower lip, which was torn in a horizontal direction as far as the right angle of the mouth about $\frac{3}{4}$ of an inch from the ver-

milion border and 1½ in length. Then the upper lip was torn through in a perpendicular direction to the opening into the right anterior nares, and from here upwards to near the inner canthus of the right eye there continued a superficial abrasion of the skin running perpendicularly. The nasal bones were fractured, and the soft parts of the nose loosened from the bony base. The right central incisor was broken off horizontally about its middle. From the appearance of these injuries it appeared that the injury came from below and travelling upwards caused these several injuries. From the mouth and nose exuded a bloody fluid.

On opening the thorax the lungs were very voluminous, appearing somewhat like those of a drowned person, so I immediately opened the trache in situ and found the trachea filled with fluid and frothy blood, and on inserting the finger upwards I found a hard substance just below the vocal cords. I then removed the tongue, soft palate, pillars of the fauces, larynx, trachea and esophagus *en masse*, and on investigating the larynx found this piece of wood lying loosely just below the vocal cords. You will observe that it has two planed surfaces, the other surface being shelving and rough, and that the outline of this surface is somewhat of a segment of a circle corresponding almost to that of the upper row of teeth in the human jaw at its anterior portion. The nature of the wounds on the face and the broken tooth would seem to indicate that this piece of wood was cut from some of the joists that he passed on his way down, and as the question of the manner in which he came to fall, whether from a broken plank or a stumble, was likely to arise in a civil suit for damages, it was of importance to know whether such was the case, and if so from which joist this piece was cut. Dr. Riches, who had charge of the case, was good enough to have a carpenter examine the joists on the different floors and he found that a joist on the second floor up was damaged and he removed this part from the joist, and I think that if you will examine this piece of wood that I will now pass around and compare it with that found in the trachea you will come to the conclusion that they correspond exactly.

This, of course, would be very good evidence that he fell feet first, at least during this portion of his descent, and this would, perhaps, lead to the presumption that his fall was due to a breaking plank rather than a stumble.

This case shows the wisdom of doing any post-mortem thoroughly even when the cause of death is apparently clear.

One other subject I should like to take up very briefly, and that is the subject of the "Identification of Human Blood-stains."

Until two years ago the medical expert was not able, except

in very rare cases, to give a more positive statement in regard to a blood-stain than to say that it was mammalian blood, and from examination and measurements it was consistent with human blood. At the present day one can go much farther and can state definitely whether a given blood-stain is human or not, and can even go still farther and state whether it is a stain from any alleged domestic or other animal.

This test is known as the "Serum Test," and is performed for testing human blood in the following manner:

A rabbit is given from three to six injections of human blood serum, about 10cc. each, preferably into the peritoneal cavity, at intervals of several days. Then the animal is allowed to rest for several days and some blood is then withdrawn from the animal and allowed to coagulate, and the serum is then used for the test.

If fresh blood is to be examined it should be diluted with normal saline solution to about 1-100, that is a light pink color, and then either allowed to settle and the supernatant clear fluid decanted, or else centrifuged and the clear portion used.

If dried blood-stains are to be examined, and can be scraped off on to a watch glass a solution is made with distilled water, but if on bibulous material then some of it is cut out and allowed to soak in a small quantity of distilled water for some time to allow solution of the serum to take place. This is then diluted with a small quantity of normal saline solution, cleared and transferred to a narrow test tube.

To this liquid in the test tube is added a few drops of the serum from the treated rabbit (human-immunized rabbit serum) and at ordinary temperatures there is a precipitate after a little time, but at blood heat there is an abundant whitish precipitate distinct in a few minutes if the solution contains any human blood serum. This reaction occurs with no other species of blood except some of the apes, and here the reaction is a very faint one. In the same way any other species of blood might be tested for by injecting a rabbit with the serum from an animal of the species from which the stain is supposed to have come.

I do not know that this test has been used in any medico-legal case in Canada as yet, but I have had some experience of it in an experimental way and can vouch for the practicability of it, and I may say that I have taken a series of twenty-four bloods, including the ordinary domestic animals, and many wild ones as well, and have found that none of them can be confounded with human blood, although that of the monkey will sometimes give a slight and slowly forming precipitate.

The technique, however, is not quite as simple as it might appear, although the difficulties are not insurmountable and require only patience and a little practice.

SOME VIEWS REGARDING PUERPERAL INFECTION AND ITS TREATMENT FROM OUR PRESENT-DAY VIEW-POINT.

By H. MEEK, M.D.,

Fellow British Gynecological Society, Gynecologist to Victoria Hospital, London, Ont.

When requested a month ago to prepare a paper for this meeting of our Association I was at a loss for a time to know what subject to choose. After due deliberation, however, I decided in favor of the subject announced for this evening's paper, for the following reasons:

1. Because no paper on the subject of puerperal infection has been read before our Association for years; if I remember rightly the last having been read by myself.

2. Because our views, more particularly as to the management of many of these cases, have been considerably modified during the past few years.

3. Because in looking over recent reports regarding the frequency of, and mortality from puerperal infection, we find that although there has been a great reduction both in the frequency and mortality in hospital practice since the introduction of asepsis and antisepsis in obstetrical work, this does not apply to private practice. Reports from both Europe and America show that the mortality from puerperal infection outside of well-conducted maternity hospitals, is not much less than in pre-antiseptic days.

This deplorable condition of affairs is explained to be due (in great measure) to more frequent interference with the parturition process than formerly and also to improper after management. In reference to this I cannot speak positively, but judging from the number of cases I now see in consultation, contrasted with the number seen several years ago, I should infer that in this vicinity both the frequency of and mortality from puerperal infection in private practice had considerably decreased.

4. Finally, I have chosen this subject because it is a subject in which all the members of our Association are interested, about which all will probably have their individual opinions. A subject, therefore, which all can discuss with mutual benefit.

From our present-day view-point I shall first briefly consider what is meant by puerperal infection, its causation, the avenues by which it spreads, the natural safeguards in parturient patient against infection, and the mortality in cases where no active treatment has been used.

Secondly, I shall consider the treatment prophylactic and curative.

The only difference between puerperal infection and infection in the non-puerperal state is due to the altered condition of tissues and organs incident to pregnancy and the puerperal state. In both the infection is due to micro-organisms and their products which are identically the same in each. The changes which take place during pregnancy, the unavoidable traumatisms that occur in the genital tract during labor and more particularly the large open wound in the uterus occasioned by separation of the placenta are conditions favoring infection; and added to this the lowered vitality, the result of a wearisome labor process and its attendant blood losses, very greatly increases the patient's susceptibility.

The micro-organisms causing this infection with which we are now most familiar are the streptococcus, staphylococcus, colon-bacillus, gonococcus, and the saprophytes.

As to how infection is introduced all are now agreed that with rare exceptions the infecting agent is introduced from without during or soon after parturition. In a small percentage of cases the source of infection may be a pre-existent focus in abdomen, pelvis, or genital tract, *e.g.*, an old appendix abscess, pus tube, latent gonorrhea in cervix or Bartholin's ducts. The so-called auto-infection cases occur in this way. With these rare exceptions the infecting agent is introduced from without and is the result of neglect of surgical cleanliness by those who have the management of the case during labor or soon after.

In all the more serious infections the point at which such infection starts is in the uterine cavity, the infecting agent having been carried there by unclean manipulation. Infection once introduced into the uterus may spread by continuity along the mucous membrane up through the fallopian tubes and into the peritoneal cavity. The gonococcus and colon-bacillus spread in this way, but these infections are not immediately dangerous to life.

Second: By penetrating deeply into the underlying tissues, causing destruction in their path, or both germs and their products may be taken up by the lymphatics, and the infecting process may either become localized in some part of the pelvis or enter the general circulation causing general systemic infection, or the infecting germs may enter directly into the circulation through the open mouths of the veins at placental site or other wound surface in uterus. In the latter the infection may flood the system and rapidly prove fatal, or it may become more or less localized in uterine and pelvic veins, causing a phlebitis from which focus toxic products are carried to all parts of the system, or infected emboli may be carried to distant

organs producing all the lesions and symptoms characteristic of pyemia.

The strepticoccus spreads in this way, and all strepticoccic infections are very dangerous to life.

The staphylococcus also penetrates deeply into the tissues, but it seldom produces a fatal general systemic infection, usually becoming localized in the pelvis and continuing as a local infection.

The more important natural safeguards in the patient against infection are, first, the epithelial cells lining the genital tract. In the vagina the several layers of flattened epithelial cells lining the mucous membrane make a strong barrier against the entrance of infecting germs into the general system in this part of the genital tract. Higher up in the uterine cavity the epithelial protection forms a less pregnable barrier, there being only a single layer of cuboidal epithelium and this is unavoidably broken through by the separation of placenta and decidua.

Second, another natural safeguard against infection is the acid secretion of vagina, the acidity being the result of the action of Doderleins' bacillus on the normal vaginal secretion. This acid secretion has a destructive action on the streptococcus and other pathogenic germs, so that when vaginal discharge has this normal acid reaction it safeguards the vaginal outlet against the entrance of the most dangerous of pathogenic germs. It does not, we are told, antagonize the gonococcus and colon-bacillus, but these germs are not very dangerous to the life of patient.

Third, another safeguard against the entrance of pathogenic germs into the general circulation is what is known as leukocytosis and the phagocytic action of the leukocytes.

The mortality from puerperal infection (all cases) not actively treated, we are told, is 1 per cent; mortality from streptococcus infection about 5 per cent. The streptococcus infection constitutes about 25 per cent. of all cases of puerperal infection and is the only infection (except in rare instances) attended by a mortality. We are also told that a mixed infection is much more dangerous than a simple infection. The saphrophytes work only in dead tissue and affect the general system only through the absorption of their toxic products.

Treatment.—With our present knowledge as to the causation, mode of entrance, natural safeguards and mortality without active treatment, etc., we should be in a position to deduce a few rules of guidance both in prophylactic and curative treatment. Prophylactic treatment is all important, and if proper prophylactic treatment is carried out serious puerperal infection will become almost unknown. By prophylactic treatment I mean the same care in preparation of patient for labor and the

same care during and after labor that the careful surgeon would exercise with a surgical operation case. Bearing in mind that the normal acid vaginal secretion is a safeguard against infection, no vaginal douches should be used before labor. Bearing in mind too, that infection comes from without and the carrier of infection is often the examining finger, vaginal examinations during labor should be as infrequent as possible, and owing to the difficulty of properly sterilizing the fingers, examinations should be made with sterilized rubber gloves. Of course if the vaginal secretion before labor should be abnormal (alkaline or neutral) the vagina should be carefully cleansed with soap and water and lysol douches. If labor has been conducted aseptically and the after treatment is aseptic, no post-partum douche should be given for the first week. Even in cases where the surroundings are such that an aseptic and antiseptic technique cannot be secured, it is more than probable that post-partum douching would increase the risks of infection.

Curative Treatment.—So long as we are unable to secure the same degree of surgical cleanliness in obstetrical work as is obtained in surgical work or in the management of obstetrical cases in a well equipped Maternity Hospital, puerperal infection will occasionally occur and curative treatment will be called for. If we should see a case of fever (101°F or higher) following labor it is important to find out if this elevation of temperature is the result of infection or something else. This is sometimes a difficult matter to determine. The symptoms peculiar to the different diseases causing fever must be thought of. In a follicular tonsilitis or an influenza, we usually find symptoms which lead one to suspect the nature of the trouble. Sometimes we have elevation of temperature due to fecal impaction, but this rapidly subsides after clearing out the intestinal tract with a cathartic. Again, fever may be due to breast trouble, and an examination of breasts should always be made to ascertain if the cause is in the mammary gland.

Where there has been more than the ordinary Traumatism during labor we may have what is known as traumatic fever during the first 24 to 36 hours, but this rapidly passes off.

The lochial discharge as it appears on vulvar pads or diapers should be examined. According to Jellett, "The stain produced by normal lochia is red in the centre and gradually fades away becoming lighter in color as it approaches the outer margin of stain. In putrescent lochia it produces a hard, deeply stained edge and becomes lighter toward the centre. If from the symptoms and our general investigation we suspect infection of the genital tract, a careful examination of this tract and pelvic organs should be made under the most rigid aseptic and antiseptic precautions."

Much depends on how this examination is made, for if improperly made it may be the cause of serious harm. The patient should be placed on a table in good light so that the external genitals can be carefully inspected. The lower abdomen pubes, inner sides of thighs, buttocks, vulva and perineum should be carefully cleansed with soap and water and 1 per cent. lysol. The examination field should be isolated with aseptic towels. Hands and instruments used in the examination should be made surgically clean. The examination should be made from below upward, each organ in its turn systematically. First vulva and perineum, then after these parts are carefully cleansed we should examine vagina and cervix. Next a bimanual examination of pelvic organs should be made. Now if it is thought necessary to examine the uterine cavity, the cervix and vagina should be thoroughly cleansed before doing so. The uterine cavity is best explored by the aseptic finger covered by a sterilized rubber glove. Before exploring the uterine cavity it is advisable to secure some of the discharges in uterus (with a Doderlein tube) for bacteriological examination. By this method of examining from below up, we reduce to a minimum the risk of carrying infection from an infected area low down to a non-infected area higher up, and also the risk of producing a mixed infection in uterine cavity. The question as to what local treatment should be adopted is decided upon by this examination and the symptoms the patient presents. If infection is due to saphrophytes the symptoms will be those of sapremia, viz.:

(1) Elevation of temperature probably 102½ or 103°F about the sixth or seventh day or earlier (2) Moderately increased frequency of pulse. (3) Offensive lochia from putrefaction of blood clot or separated secundines acted on by the saprophytes. The proper treatment in such cases will be to remove the offending material by careful irrigation with salt solution or 1 per cent. lysol, assisted by the finger or blunt curette. After the removal of the putrescent material the tract should be carefully irrigated and then gently packed with sterilized 5 per cent. iodoform gauze wrung out of formalin solution 1 in 500 or a solution recommended by Webster,

℞	Glycerine (sterile)	℥ iv.
	Formalin	30 m.
	Water (sterile)	Oj.

The gauze packing may be left in the uterus usually 12 to 24 hours and not renewed.

If the examination shows the genital tract free from putrefaction material and the general symptoms, such as rigors, high temperature and sweats, point to uterine and pelvic phlebitis,

then all local treatment to uterine cavity should be carefully avoided. In other cases where the uterus is empty and the symptoms point to lymphatic septicemia, if one strongly suspects or is sure from examination of the discharges that the infecting agent in the uterus is the streptococcus, then interference with the uterine cavity, either by curette or irrigation, will be exceedingly risky and should be avoided.

There is now no doubt that the mortality in this class of cases has been greatly increased from this line of treatment; in fact, I think, generally speaking in practice outside the hospital, except in the hands of experts and when a perfect technique can be obtained, in all cases where the uterine cavity is found empty the woman is much safer without intra-uterine treatment of any kind; even in sapremic cases if one suspects the possible association of a streptococcic infection, the removal of the putrescent material with finger or curette as well as the after treatment calls for the greatest possible care. If such an association were actually known to exist, it is more than probable that unless a rigid aseptic technique can be secured in clearing out the uterus, the mortality would be less by leaving the case to nature.

What I have previously stated regarding the mortality in puerperal infection must be kept in mind, viz.: That the streptococcus is the cause of mortality. That the mortality in streptococcic cases is 5 per cent. and that the mortality in all cases is about 1 per cent. It must be remembered, however, that in many of the cases that do not terminate fatally the patients become chronic invalids from the effects of pathological lesions caused by the infection.

Pryor claims for his treatment a lessening both of mortality percentage and morbidity percentage. This treatment, he claims, is applicable to all cases of puerperal sepsis except phlebitic cases, and consists (1) in a careful cleansing of the parts under anesthesia. (2) Curettage and thorough irrigation of uterus and packing its cavity with sterilized iodoform gauze. (3) A free incision into the cul de sac posterior to cervix, evacuating the poisonous fluids which he claims always accumulate there, and then packing the posterior pelvis behind the uterus from side to side to the brim with sterilized 5 per cent. iodoform gauze. The vagina is also packed in the same way. He claims that nascent iodine is rapidly absorbed into the circulation and cuts short the infection. To assist in elimination of iodine and sepsis, after saline enemas are given, and in cases where the pulse is 120 or over, an intra-venous injection of two or three quarts of normal salt solution is given before the operation. The removal and renewal of the gauze packing will depend on the symptoms.

Webster, in similar cases, recommends clearing out debris that may be found in uterus by careful irrigation, then packing without curettage with iodoform gauze wrung out of a solution glycerine 4 ounces, formalin 30 minims, water 1 pint. The gauze packing to be renewed in twelve hours if improvement should follow, otherwise no further intra-uterine treatment.

Pryor's treatment, in my opinion, should not be experimented with outside of hospital practice, and even the method of careful irrigation followed by packing with gauze wrung out of formalin solution, should be tried only where a proper technique can be obtained.

Infected wounds in lower genital tract should be treated by keeping parts clean by frequent irrigations with lysol 1 per cent., or by applying to the infected surface, after cleansing with hydrogen peroxide, a dressing of iodoform gauze wrung out of the previously mentioned formalin solution.

In all cases general treatment should receive careful attention. The intestinal tract should be kept cleared out by calomel and salines. Saline enemas should be given. Diet should be concentrated liquid nourishment. Alcoholic stimulants should be given freely, from 4 ounces to 12 ounces of whiskey during the 24 hours. For fever, quinine may be required in large doses, and later it should be given in tonic doses. Strychnia is probably the best heart stimulant in these cases.

Antistreptococcic serum has proved a failure, probably because the streptococcus in bad cases of streptococcic puerperal sepsis is a different germ from that from which the serum was obtained. Later on, when the acute process has subsided, the pathological conditions resulting can be treated on general medical and surgical principles.

330 Queen's Avenue.

THE RADICAL CURE OF HERNIA.

By A. GROVES, M.D.,

Medical Superintendent, Royal Alexandra Hospital, Fergus.

When it is remembered that about 20 per cent. of the whole population is afflicted with hernia, and that apart from the hernia of infancy and childhood no attempt is made to cure the vast majority, it would not appear that any apology would be necessary for drawing the attention of the profession to the subject of the radical cure. It seems to me the profession has been and is remiss in its duty in this matter. I know that as a rule when a case of hernia presents itself, a truss is the first and only thing recommended, when it should be the last thing thought of. Except in certain special cases a truss is usually an evidence of incompetence and always a proof of failure. A truss is generally merely a means of palliation, whereas the first aim of the surgeon should be to cure, and only when that is impossible should he admit defeat and abandon the field to the truss maker. A large percentage of cases is curable, and it is not creditable to the profession to have men and women going around all their lives wearing trusses when they ought to be cured. It is a simple and easy matter to order a truss, but is it fair to the patient to keep him in ignorance of anything better, and condemn him all his life to the discomfort and danger of an uncured rupture as well as the irksomeness of a mechanical support?

It is not to be wondered at that the travelling rupture specialist thrives when the great mass of the profession practically tell their patients there is no cure for rupture, or if perchance radical cure is mentioned it is often in a deprecatory strain. The possible dangers of the operation are quite vividly painted, and the possibility of failure is not allowed to be forgotten. These things are true, but they are not the whole truth. The danger of a hernia becoming strangulated, and death resulting therefrom, is quite as great as the danger of death from a radical operation undertaken when the patient is well.

Before attempting the radical cure of a hernia it is necessary to have a clear understanding of the anatomical conditions which render a hernia possible, and on this point the text books are not clear and are often misleading. In Dennis' System of Surgery, for instance, it is stated that "hernia occurs at the umbilicus where muscular planes are lacking, and at points where an interval exists between muscular fibres," thus leading the reader to imagine that insufficiency of muscular structure is responsible for hernial protrusions. To my mind this is erroneous teaching. Fascial or aponeurotic structures

alone prevent protrusion. The function of a muscle is active work, that of a fascia passive resistance, and one cannot do the work of the other. Ordinary striped muscle cannot resist lateral pressure, either it will stretch before it or the fibres will be separated; fascia, on the contrary, will not easily stretch, and it is only with difficulty an opening is made in it by pressure. The great function of the abdominal fascia is to act as a retaining wall for the abdominal contents, and so long as it is intact no hernia can occur. When a rupture occurs it is because of weakness or deficiency of the fascia, and it is to be cured only by restoration of fascial integrity. I would define hernia as the protrusion of a viscus owing to fascial insufficiency. The failure to appreciate this principle accounts for the many futile methods of operating which have from time to time been devised. Amongst these might be mentioned the injection method, whereby it was supposed sufficient adhesion of the walls of the canal could be produced to retain the bowel, but such a hope is groundless. Then there are the various methods of plugging the canal, as well as the open method in which cicatrical tissue was depended on to effect a cure. All such methods must of necessity fail because they are not founded on the primary principle that fascia and nothing else can retain the bowel. When about to operate for the cure of a hernia it is well to keep in mind that the one object to be attained is the restoration of the abdominal wall to its normal condition, and that in so far as this ideal is missed to that precise extent will the operation lack perfection. An operator who has not grasped the true principle involved will find himself more or less lost in a maze of great names, each advising something different, and all to a greater or lesser extent away from the truth. Surgeons burden themselves trying to remember the many operations and modifications of operations laid down in the various text-books, when the simple problem before them is to restore the continuity of the abdominal wall after the viscera have been replaced in the abdomen, and the success of the operation depends mainly on how the abdominal wound is put together, for faulty technique here means failure. The problem is simply the putting together of an abdominal wound, and the same rules apply as in any other wound of the abdomen. The rule I follow is to restore the continuity of each layer of the abdominal wall, taking special care to bring together most accurately the edges of the fascie, allowing no muscular or other structures to be included in the fascial sutures. Where muscles have been incised or separated I restore muscular integrity by sutures, including only tissues normally continuous. The same thing with an aponeurosis, that is, I never put in through-and-through sutures. It is never well to bring

together structures nature never intended to be together. The putting in of through-and-through sutures in an abdominal wound is haphazard surgery with the chances immensely against the layers coming together in their natural order, and if they do not, even by a little, by that little the operation fails of complete success. A foreign body is simply matter out of place, so that if muscle intervenes between the edges of fascia it is a foreign body, and as such prevents natural union. The sac protruding down through the canal is a foreign body and must be put back where it naturally belongs. Foldings, twistings, or reduplications of the sac are of no avail, in fact they are positively injurious, and have been recommended from a misconception of the principles of cure. To epitomize, I would say in all cases open the canal thoroughly, restore to the abdominal cavity everything belonging to it; if the sac cannot be easily freed ligate, cut off and drop back, close the wound layer by layer. For suture material anything that is aseptic non-irritating and that will undergo absorption is suitable. As a permanent aid in keeping parts together no suture is of any use; indeed, sutures being foreign bodies are at best a necessary evil designed to keep parts in apposition temporarily but incapable of acting as permanent supports, hence metallic sutures should not be used in situations where they cannot be removed when their work is done. Antiseptics are in those cases, to my mind, at best valueless; if weak they will not destroy disease germs, if strong they injure the tissues, lessen their powers of resistance, and interfere with the normal process of healing. The introduction of any foreign substance, call it what you will, into a clean wound, is injurious. Sterile water or normal saline solution is less injurious than anything else, and is all that is required. The simple formula, "Wash and be clean," is as true now as when first uttered, and if thoroughly carried out will be followed by perfect results. As to the dangers of the operation with modern aseptic methods, it would appear that in competent hands the death factor can be practically eliminated, but it would not be fair to argue from this that there was no danger. The danger is very real and imminent, and it is only by realizing this fact and taking every precaution that an operation can be undertaken with an almost absolute assurance of safety. Whilst in children the operation is quite as safe as in adults it is more difficult and, ordinarily, I think unadvisable, until any reasonable hope of spontaneous cure has passed. Generally there is a fair chance of recovery without operation under proper treatment up to ten years of age, but after this the chances rapidly lessen, and after twenty there are few recoveries. In my opinion the patient should be kept in bed for a month after the operation,

as firm union will not take place in less time. If a truss is required afterwards the operation has been a failure, but there should not be more than two per cent. of failures, and even these will arise from some fault of technique in most cases. There may, indeed, be cases where the deficiency of fascia is so great that its integrity cannot be restored, but they are rare in the hands of a competent operator. To succeed in any given case the operator must not only believe success possible, but also that it is possible to him. If he does not so believe he had better not operate, for no man's results are better than his ideals, and if his ideals are low his results will be also low. It might be permitted me to illustrate by two or three examples the results of operation: First—A patient, aged forty-six years, with a large scrotal hernia which had troubled him all his life, and which no truss he had used would retain. The canal was thoroughly laid open, the sac opened, cut off, ligated and returned to the abdomen, then layer by layer the continuity of the abdominal wall was restored as nearly as possible as nature intended it to be in a normal case. He was kept in bed for six weeks to give ample time for perfect consolidation. He had no further trouble with his hernia, and no longer needed a truss.

Second—A woman, aged fifty-five years, with an umbilical hernia which had existed as long as she could remember. The sac was laid open, adherent omentum ligated and cut off, the stump being dropped back, the sac itself dissected up, the redundant portion cut off and the edges having been stitched together the remainder was returned to the abdomen. It remained only to bring together the edge of the opening in the linea alba and the skin wound. A perfect cure resulted after a month in bed.

Lastly—I take a case of femoral hernia where the patient found it impossible to wear a truss on account of adherent omentum. She had been advised to let well enough alone when she was far from being well enough, the dangers of an operation had been laid before her in minute and elaborate detail, and it was only when life had become unbearable that she came to the hospital ready, as she expressed it, to run the awful risk of an operation. She was astounded when told that at most there was not more than one chance in a thousand that she would not recover. After attending to the omentum and sac the fascial edges were brought together and a cure resulted.

To quote further cases is unnecessary, for these are typical of those usually met with, and these results can practically always be obtained if the surgeon never loses sight of the truth that to restore the fascia is to cure the hernia.

CHRONIC RHEUMATISM AND NEURITIS.*

By JAMES J. WALSH, M.D.

There is probably no affection which has proved a source of more opprobrium to medicine than so-called chronic rheumatism. Forms of the disease are constantly occurring for which effective treatment is almost entirely lacking. The fact of the matter is, however, that the group of diseases known as chronic rheumatism is not a single entity in medicine, but represents a large number of disparate pathological conditions, that is, a number of affections that bear practically no relation to one another, and have no reason at all for being grouped under the word "rheumatism," except that they represent painful conditions usually occurring in the neighborhood of joints.

I have pointed out, in a series of articles published during the last few years, that many of the cases of so-called chronic rheumatism are really other affections. There seems no doubt that the term "chronic rheumatism" will eventually disappear practically entirely from medical literature. At the present time most of the chronic rheumatism of the foot and ankle is really due to flat-foot. Most of the rheumatic conditions involving the forearm and wrist are really occupation neuroses. So-called rheumatism of the shoulder also is often an occupation neuroses.

Case 1. The patient is a man about sixty, who complains that he is no longer able to lift his arm straight out from the side, or, rather, that he has rheumatism of the shoulder and cannot use his arm. His ailment developed gradually about six months ago. At first he noticed that his arm was much more tired than before when he used it, and that the fatigue that developed became painful after a time. On rainy days his condition was much worse than on other days, and he became tired much sooner. On rainy days, too, the painful feeling and fatigue lasted into the night, so that sometimes he lost sleep on account of it. He went to see doctors about it, and was told that he had rheumatism. His shoulder was rubbed with various liniments, and he was given medicine.

An examination showed that the main element in the case was the impossibility of raising his arm straight out from his body. In a word the deltoid muscle refused to functionate. As a result of disuse for more than three months, there was some atrophy of the muscle. When asked as to his habits as to alcohol, he said that he usually drank three or four or more

* Read at a meeting of the Clinical Society of the New York Polyclinic Medical School and Hospital.

glasses of beer a day, and a glass or two of whiskey. When asked as to his occupation, he said that he was a "chipper," that is, he worked in a foundry, and when the rough castings came from the mould, with a hammer and chisel he went over the rough parts where joints in the moulds occur and made them as smooth as possible. This involves use of the hammer all day, and as is well known, means the use of the deltoid muscle and of the group of muscles supplied by the circumflex nerve. It is evident that his occupation has considerable to do with the location of his neuritis in this particular nerve—the circumflex. This nerve is overworked. He is taking enough alcohol at least to predispose to alcoholic neuritis, and so the condition is almost surely a neuritis.

At first the fatigue and pain that he noticed were due to the fact that the muscle was not receiving its proper trophic influences through the gradually inflaming nerve, and in addition it was not receiving the ordinary nervous impulses to set properly in motion. Why these conditions are worse on rainy days is one of the mysteries. It is well known that a tooth that has not been troublesome for some weeks or months will become insistently annoying on a damp day. This is, perhaps, due to the hydroscopic character of the sensitive dentine, which causes it to take up moisture from the air. In some cases, however, the sensitive dentine is not exposed, and the fact that nerves will begin to be painful before the weather actually becomes very damp (the prophetic nerve pains that enable so many people to announce the approach of damp weather) shows that the nerve sensitiveness is probably due to the drop in the barometer, and the consequent disturbances of the capillary circulation for the moment by the change in air pressure.

This man has been treated with the salicylates and other so-called rheumatic remedies. Are they likely to do any good? Yes, whenever the painful condition exists, in addition to being antipyretic they are anodynes. Twenty grains of salicylic acid or salicylate of soda, as many dentists know, will as effectually dispose of toothache as ten grains of antipyrine or a corresponding amount of phenacetin or acetanilid. To the underlying condition, however, the salicylates, instead of doing good are likely to do harm. They are depressant drugs. Discomfort is, at most, only an incident in the case. It is loss of power that is the main thing. Some atrophy of the deltoid muscle already exists, and it will not be long before atrophy of structures within the joint will commence, because it is from the circumflex nerve that the joint issues receive their trophic impulses. After a time, then, those changes will occur in the joint structures, which are pointed to with confidence as an

evidence of chronic rheumatism. In reality they are no such thing, but a manifestation of trophic disturbance, partly nervous and partly due to lack of use.

Case 2. The next illustrative case is that of a man who complains of rheumatism in his elbow and hands. He knows that it is rheumatism because several doctors have pronounced the magic word. He has pain in his elbow and some loss of sensation on the ulnar side of his hand. The muscles of his arm become very tired very soon when he uses them, and the fatigue, after a time, is almost painful. He points out very clearly where the difficulty lies, and makes a beautiful demonstration of the course of his ulnar nerve. He shows a tender spot in what is familiarly called the "funny bone," that is, in the grove on the inner side of the arm at the elbow, and says that his third and fourth fingers are lacking in sensation. He says that the outer side of his third finger is without sensation, though the inner side retains a certain amount.

His occupation is that of a stone-cutter. He uses a hammer and chisel constantly. He is compelled to grasp the chisel very firmly, using especially the ulnar side of his hand for this purpose, because when he strikes the head of the instrument, its sharp edge is against the rock, and there is considerable vibration. It is his ulnar nerve, then, that is being overworked, and it is in this that the neuritis has developed. His habits with regard to alcohol are not so clear. He confesses to drinking a few glasses of beer a day, but no whiskey. He works in the open air constantly, and it would seem that when overworked nerves are exposed to frequent changes of temperature, they become less resistant to infections of many kinds.

In this case we have to deal with a neuritis, and it will not be benefited by the administration of salicylates. The man will probably be compelled to give up his present occupation. He may never again be able to use his ulnar nerve in the way he has used it before. In the meantime, general stimulation, massage of the muscles of the part, provided it can be done without pain, and perhaps electricity, may do him good. Time and rest are the main elements, however, that will effect a cure and interference with Nature's slow processes will only hinder rather than help the progress of the case. It is probable that Nature has been giving warnings with regard to the overuse of this nerve for several years. It is useless to hope that a patient will go up a hill faster than he will go down. It is of no use to promise these people an immediate cure; they cannot have it.

These cases illustrate certain phases of the painful condition about the shoulder-joints that are often called "chronic rheumatism." Many more of the cases of rheumatism of the

shoulder joints than might be imagined can be explained in just the same way as in these cases. The tired ache that follows the use of muscles when certain auxiliary muscles are unable to functionate properly, because a low grade neuritis prevents the sending down of motor impulses, is the basis for much of the discomfort experienced in these cases.

As a matter of fact, faithful examination of the cases that we are tempted to call chronic rheumatism will practically always bring about their relegation to some other category than that of rheumatism. If rheumatism means anything it means a collection of fluid in the joint, because it is derived from the Greek word "to flow," meaning an excess of secretion. None of these cases presents a superabundance of fluid within the joint capsule, and though changes sometimes take place within the joint, these will be found to be due partly to the lowered trophic condition incident to the nervous affection, and partly to the unfavorable circumstances in which the joint tissues are placed because of the inaction.

Dr. W. R. Townsend opened the discussion, saying that a great number of cases of flat-foot follow acute rheumatism and gouty attacks, but he did not believe that all cases of rheumatism of the foot were flat-foot. While rheumatoid arthritis may very well follow one of the infectious processes, still it is difficult to prove this always to be the case. It is very easy to accuse a man of having had gonorrhea or syphilis when there are no symptoms of these conditions present, but a patient's statements are not always false, and other causes must be sought, very often, to account for the joint symptom. Chronic rheumatism, while it may be exceedingly rare, certainly exists, although the classes of cases that the reader of the paper had grouped together were certainly of neuritis or allied to it.

Society Reports.

LONDON MEDICAL ASSOCIATION.

Resume of Work Done During 1903.

By DR. W. M. ENGLISH.

Gentlemen,—I am pleased to be able to report that the past year has been one of pleasure and, I believe, profit to the members who attended our meetings.

In addition to our eight regular meetings, at which the average attendance was ten, we had under our auspices a most interesting and instructive lantern lecture on small-pox by Dr. C. A. Hodgetts, of the Provincial Health Department, Toronto.

The meeting of the Canadian Medical Association in August last was an event in the medical life of the city and we were all pleased to know that it was one of the most successful gatherings in recent years both in the matter presented at the sessions and the entertainment provided.

Four members have been added to our numbers during the year, yet the attendance at our monthly gatherings is not what it should be and the hesitancy of the majority of our fellows in contributing papers or exhibiting cases or specimens is one that makes the position of your president in providing a programme a by no means easy one.

At the January meeting, nine members being present, Dr. Weeks showed a specimen of the right ovary and tube and the appendix which had been removed.

In the absence of the retiring president, Dr. Minns, Dr. English gave a *résumé* of the work done by the Association in 1902, and also gave notes of a case of cancer of the vagina with operation and recurrence, thyoseyamine being given to relieve pain etc., with some success. Dr. Weeks referred to a case of puerperal eclampsia in which free use of morphia gave relief

In February, with an attendance of twelve members and one visitor, Dr. Eccles showed a solid tumor of the ovary and read a paper on tumefactions of the abdomen, dealing with the difficulties of diagnosis and the best ways of overcoming them. Also at this meeting it was decided to invite Dr. C. A. Hodgetts, of Toronto, to give his illustrated lectures on small-pox.

At the March meeting nine members and two students being present, Dr. H. Williams gave notes of two cases of strangula-

tion of the bowel; the first being caused by a firm fibrous band which passed around the bowel; and the other one of strangulated inguinal hernia. Dr. D. H. Arnott reported a case of tumor of the brain, the symptoms lasting for two years and being subjective until three months before death. On post-mortem a sarco-glioma was found and presented to the meeting.

Eleven members and some students being present in April, Dr. H. A. McCallum, by request, gave a most interesting address on diseases of the nervous system and illustrated his subject with a number of clinical and pathological lantern slides.

At the May meeting, eight members being present, Dr. R. Ferguson reported a case of inguinal hernia, the sac of which on being opened was found to contain a rudimentary uterus with its appendages. Dr. English referred to a case recently operated on where the hernial sac contained a section of gangrenous omentum. Dr. Hodge exhibited a specimen of aneurism of the aorta and inominate artery from a man 61 years of age who had syphilis in early life. Adjournment then took place until October, when, ten members being in attendance, Dr. Weeks gave notes of a puzzling case that developed hyperpyrexia and acute nephritis. Those present could throw no decided light upon it as to cause, etc. Dr. Hodge reported a case of glycosuria, and gave a detailed diet list and showed how the quantity as well as the quality of food given these patients was most important. Under this scientific treatment the patient had gradually recovered.

At the November meeting, eleven members being present, Dr. Eccles referred to a couple of cases recently treated of intractable cystitis. In the first he formed an artifical vesico-vaginal fistula and after keeping it open for four months it was closed and for the past twelve months the patient has been thoroughly well. The other case had a fistula produced and though all irritation had disappeared he would not close the opening for some weeks yet.

At the present meeting I am pleased to see eleven members and sixteen students present and I am sure we have listened with much pleasure and profit to the timely, able and instructive paper of Dr. Weeks, on Puerperal Infection.

Gentlemen, I thank you most heartily for the kindness you have shown me during my ten years of office in this Association and trust that my successor will receive the same hearty assistance.

London, Dec. 14th, 1903.

The officers of the London Medical Association for the ensuing year are:—Dr. W. J. Weeks, President; Dr. D. H. Arnott. Vice-President; Dr. E. L. Williams, Secretary-Treasurer.

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, H. J. HAMILTON AND T. A. CLARKSON.

Medical Treatment of Appendicitis.

Robin, of the Hôpital de la Piété, protests energetically against the classical treatment of this disease by giving opium, applications of ice to the abdomen and then operating as soon as possible. Out of a series of 250 cases reported by him, he has advised surgical intervention in six only. Of these six, two died and four recovered.

Making the requisite reservation for the infective appendicitis of influenza, eruptive fevers, etc., for that which accompanies the lesions of the uterine adnexa, and for that caused by traumatism or foreign bodies, Robin holds that ordinary appendicitis—that occurring in persons suffering from habitual constipation—represents the ultimate manifestation of the intestinal resentment, determined by hypersthenic dyspepsia, and that it can be avoided by treating that dyspepsia and the primary disturbances of the intestine. By interrogating patients suffering from this disease, we find that most of them have had a gastric hypersthenia. What is the bond that unites so many cases of appendicitis with this hypersthenic dyspepsia? Examining the feces, we find that they have an acid reaction. In the intestines they undergo fermentations, which are a continuation of the anomalous fermentations already begun in the stomach; further, compared with normal feces, they are richer in inorganic substances (phosphate of calcium and magnesium). These feces are irritating and under their influence there is produced a relative inhibition of the functions of the intestine, since the extreme acidity of the chyme not only saturates the intestinal juices but acidifies them, thus interfering with the action of the ferments secreted by the pancreas and by the mucosa of the small intestine. These substances accumulate in the cecum and cause constipation, one of the most common symptoms of hypersthenia. Naturally the mucosa of the cecum and appendix reacts under the influence of these irritating acid feces, secreting mucus, which soon becomes infiltrated with lime salts, so abundantly found in such feces. In this way the mucosa and the submucous tissue of the appendix become inflamed and thus

prepare the way for a microbic infection. If the latter occurs, then there is created a true appendicitis, against which medical treatment is unavailing and surgical intervention is necessary whereas surgery can do no good in the first stages of the disease. Robin, in support of his theory, adds that cecal constipation is one of the most important symptoms of gastric hypersthenia, and that in all cases of appendicitis he has found gastric hypersthenia co-existing with cecal constipation. Robin's treatment is therefore in accord with his theory. He forbids the use of opium because it immobilizes the intestine, whereas the essential indication is to purge it. He therefore administers castor oil (30 gr.) or 40 centigr. calomel, if the former fails. After the first evacuations he gives free high intestinal irrigation, using a litre and a half of water with 10 drops of tincture of sage, which causes peristalsis. During the irrigation he has the hips held high enough to allow the water to pass by its own weight into the sigmoid flexure, and when all has been introduced, the legs and pelvis are raised so that the water may pass into the descending colon. At the moment when the characteristic gurgling announces the fall of the liquid, the patient is quickly turned on his right side, so that the water may pass into the transverse colon, whence, by straightening the trunk, it will pass into the ascending colon and cecum, where it is easy to detect its presence. Now, Robin makes a gentle massage at all the points where there is constipation, so as to loosen the hardened feces. Then he makes similar movements in the opposite direction, so as to bring back the liquid to the rectum. In this way he obtains two or three large evacuations, in which are found hard black or yellow scybala of a special odor. This operation is repeated every day so as to prevent the accumulation of feces in the intestine, and every two days the patient receives the castor oil. Throughout the attack the patient is kept on a strict milk regimen, according to the usual rules. The best argument for Robin's method of treatment is his record of 244 recoveries out of 250 cases, of which six were operated on. He claims that at the most 10 per cent. of the cases require surgical intervention.—Translated by HARLEY SMITH.

Reproduction of Syphilis in Anthropoid Apes.

At the July meeting of the Academy of Medicine of Paris, Roux and Metchnikoff made an important announcement on the positive results obtained from the inoculation of syphilitic virus in a young female chimpanzee. It is well known that many attempts to introduce syphilis into animals have hitherto given negative or very imperfect results, so much so that Barthélemy, in a résumé on this subject (*La Syphilis*, V. 1, 1903) concludes, "Up to the present time there is not known in animals, whether

in the dog or horse, in the hog or ape, a disease which can be defined as syphilis."

The study of a series of human diseases is made very difficult by the fact that the animals ordinarily chosen for experiments present a complete immunity towards the diseases. Hence the necessity of inoculating diseases exclusively human in anthropoid apes, as being nearest to the human being. Roux and Metchnikoff, having made a scarification of the epidermis on the right side of the fold of the clitoris of a female chimpanzee, inoculated a little virus taken from a syphilitic ulcer, about a month old. Five days later they made another inoculation on the left side of the fold with the product obtained from scraping a hard sore, only three days old. The inoculations did not produce any immediate lesion and the points of inoculation closed without leaving any mark. During the first three weeks no symptom appeared, but on the 26th day there appeared near the clitoris, on the right side, at the point of inoculation, a small oval, transparent vesicle, surrounded by a reddish zone. This vesicle became an ulcer, markedly hard in character. The bottom of the ulcer was round and yellowish, but the ulcer soon was covered with a grey pseudo-membrane. The small inguinal glands began to enlarge and were not painful on pressure. Up to the 46th day, when the report was made to the Academy, no secondary symptom had appeared.

Fournier, at the same session, said that, at the invitation of Roux and Metchnikoff, he had examined the animal and had no doubt that the sore referred to was of the *hard* type, presenting to the fingers that special kind of resistance resembling a visiting card or parchment. Further, the duration of the incubation period points to syphilis, being in this case 25 days. Then the character of the glandular swellings points similarly to syphilis. In this disease the buboes are multiple, hard and indolent. While Fournier was inclined to consider the evidence already strong enough, he advised postponing a definite judgment until the appearance of secondary symptoms—granting that syphilis in the animal develops under the same laws as in man.

If the experiment prove successful, it opens up the possibility of studying in the animal a hundred different problems in therapy, immunization and vaccination. "Perhaps," Fournier concluded, "we are at the dawn, thanks to Roux and Metchnikoff, of one of those discoveries which, like so many others that have come from the *Institut Pasteur*, represent not only a signal glory for science, but also a great benefit for humanity." —Translated by HARLEY SMITH.

Inoculation of a Chimpanzee with Syphilis.

At the meeting of the French Academy of Medicine held last July, Messrs. Roux & Metchnikoff reported the inoculation of a young female chimpanzee with syphilitic virus. Twenty-five days later this was followed by an indurated sole at the seat of inoculation, and then in a few days by a bubo. M. Fournier, on examining these manifestations, pronounced the picture typical. About a month later, the secondary rash appeared, but unfortunately, if we are to believe the press reports, the animal died.

From the close affinity between man and this most anthropoidal ape, as shown not only by its anatomical structure, but also by the precipitation and agglutination of its serum, we may hope that we are nearing a solution of some of the great problems of syphilis, such as those of immurization and of vaccination which would be of vast benefit to the human race.

The Stomach and the Digestion of Itself.

Weinland, a young German physiologist, has shown that in the cells of the gastro-intestinal mucous membrane are certain anti-substances, apparently like antitoxins, antilysins, etc., which we have lately learned from bacteriology. These antipepsins and antitrypsins protect the stomach and intestine from the action of the gastric and pancreatic juices, and thus solve the old problem, "Why does not the stomach digest itself?"

Beginning with the tapeworm, he was able to isolate a substance which, when added to a mixture of fibrin and pancreatic juice, prevented the digestion of the fibrin. Following the line of this experiment, he next isolated an antipepsin from the stomach and an antitrypsin from the mucous membrane of the intestine. The process of separation was readily accomplished, the anti-bodies being precipitated from solutions of the mucous membranes by various agents.—*Zeitschrift f. Biol. Vol. 43.*

Treatment of Pneumonia.

Dr. Jas. Barr, Liverpool, takes issue with Dr. Lees (*British Medical Journal*, Dec. 19th), who delivered a lecture on this subject. Dr. Lees tries to revive the practice of blood-letting, but Barr holds that in the late stage of pneumonia when venesection is usually practised, it is useless, because bleeding from the median basilic vein empties the *arterial* tree and can hence have no effect upon the dilated right heart. "What good," he says, "can there arise from drawing blood from a comparatively empty arterial system? You can only thus relieve the right side of the heart by diminishing the total amount of blood in circulation. Personally I fail to see the advantage

that can accrue from abstracting 8 or 10 oz. of blood from the arm and putting a pint of milk in the stomach. The amount of fluid in circulation will soon be re-established."

The manufacturers of oxygen must feel indebted to Dr. Lees for the maintenance of that much-worshipped fetish. No one can use more than 4 or 5 per cent. of the available 20 per cent. of the oxygen in the atmosphere. Where, then, is the necessity for the artificial product?

Dr Lees advocates the use of icebags over the chest, not only to relieve pain, but to inhibit the growth of the pneumococcus. But he refutes his own argument by removing the icebags when the patient's temperature reaches 100°F, whereas the optimum temperature of the pneumococcus is 90.5°F.

Barr further protests against frequent examinations, in order to follow the progress of the disease. "Any person with one eye should be able to see how the patient is progressing without these frequent examinations; and if the ice is applied to the abdomen, there is no necessity for discovering the particular patch over which the icebag should be located."

Edema of the Lungs and its Importance as a Mode of Death—(A Clinical Lecture by Sir Isambard Owen, *British Medical Journal*, January 2nd).

The mechanism of death in the great majority of cases is neither obvious nor simple. It is easy enough to apply such terms as "toxemia," "cardiac failure," "collapse" or "asthenia," which are mere cloaks of ignorance. In disease of the heart-valves, for example, the commonest danger to be apprehended is the extension of the dropsy to the lung itself. This in its earliest stages interferes very little with the resonance of the chest, but on deep inspiration the ear will detect a number of clear, fine, "fluid" crackles of uniform size, which are diagnostic of this condition. The subjective symptoms of pulmonary edema are few—increased distress of breathing and increased cough. In pneumonia, this condition is of even more importance and will explain the fatal termination of cases where the consolidated area is very small. "A patient," says a recent writer, "may die of pneumonia, and yet the area of consolidation be not larger than a small orange." But the unconsolidated portions are always found edematous. This condition is not a *post mortem* change because the amount is too large to be explained by passive oozing, and because the signs are detected during life, sometimes several days previous to the fatal issue. Neither is it mechanical, because it is not always found in the most dependent parts, and because it appears without signs of cardiac failure. From these facts it is obvious that frequent examination of the lungs is necessary to find out

the condition of the unconsolidated portions. Venesection, so much lauded nowadays, has its use, not from the relief to the right ventricle, but from the altered pressure in the blood vessels, and consequent temporary relief of the pulmonary edema. The other remedies advocated are leeches over the front of the chest and free watery purgation; of drugs strychnine is most satisfactory. The condition is not necessarily fatal, and often in fighting it delay is equivalent to victory.

The Contagiousness of Scarlet Fever.

The old idea that the contagion of scarlet fever is conveyed chiefly by the exfoliating skin, has of recent years been made a matter of doubt, especially since the publication of Aaser's work in Christiania (*Nord. Med. Arch.*). Out of 3,800 cases seventy-nine were infected from patients who had been discharged from the isolation hospital, where the average period of retention was nine weeks. That the hair played little part in carrying the contagion is shown from the fact that of the seventy-nine persons carrying infection, forty were boys whose heads had been shaved. Nearly a half of this infection-bearing group had ceased to desquamate at least a week before discharge, and the rest for a longer period up to five weeks previously. Aaser thinks that the chief source of contagion is the discharge from the nose and the ear, and concludes that as long as there is an abnormal secretion the patient must remain isolated, and no patient should be discharged until the physician has satisfied himself by careful examination of throat, nose and ear that the secretion has ceased.

SURGERY.

IN CHARGE OF EDMUND E. KING, GEORGE A. BINGHAM AND F. MARLOW.

The Modern Treatment of Fractures.

An address delivered by Mr. Berghard before the South West London Medical Society, and reprinted in the *British Medical Journal*, December 19th, 1903, is so thoroughly comprehensive and embraces the recent ideas of the treatment of fractures, that we heartily recommend it to our readers. The treatment of fractures has advanced wonderfully in the past few years: the old idea of keeping our fractured limbs confined to splints, rigidly done up for a great length of time, is rapidly changing to the more modern and scientific method of quickly putting the limb in motion after the fracture has been

reduced and immobolized for a short period. The old idea entirely overlooks the condition of the soft parts. The new idea looks to their function being maintained and inflammatory change and adhesions prevented in muscles and ligaments.

The use of anesthesia during the reduction of fractures is more and more coming into general use, and where these fractures involve the long bones, particularly near the joints, it should be a routine practice to reduce under anesthesia. It is of as much advantage to the surgeon as to the patient that the reduction should be made with the least amount of resistance, and the greatest amount of freedom of manipulation to accomplish the best results. Simple splints should be used, and these complicated affairs done away with as much as possible.

We have taken from this very excellent paper of Mr. Berghard's a paragraph on Colles's Fractures, and can recommend it as embracing the ideas of treatment as they exist to-day.

Colles's Fracture.

This, which is one of the commonest fractures met with in practice, is also one that gives rise to more anxiety than many others. The trouble may sometimes arise in setting the fracture, but in the majority of cases the important point is the disability which the patient suffers afterwards from the stiffness about the wrist and the fingers, and it is in this particular fracture that the modern plan of passive movement and massage produces its most brilliant results. As an example I may quote two cases that came before me only to-day in the out-patient room. The first patient, a burly mechanic, came to ask if his wrist had been broken, as he had been told that it had been. He had fallen on the outstretched palm eight weeks before he presented himself. Examination showed the typical deformity of a bad Colles's fracture, and an X-Ray photograph showed a fracture in the usual situation extending into the wrist-joint. The patient had the most perfect movement, both in his fingers and in the wrist-joint, and he declared that he had never had any medical treatment at all, and that all he had done himself was to work his wrist about and to rub it; he said that he was unable to afford the time to lie up and had to go on with his work which he had done from the time of the injury uninterruptedly. He said that he had a good deal of pain on the first day but that subsided readily when he rubbed it, and from the time of the accident to the time that he presented himself at the out-patient department he had never worn any apparatus of any kind, not even a sling. The other patient complained of stiffness of the fingers; he also had sustained a Colles's fracture which had been treated immediately,

and had been excellently reduced, but the splints applied had extended to the tips of the fingers and had been kept on for six weeks. The result was that there were adhesions in all the tendon sheaths and apparently extensive adhesions in the wrist-joint itself. The first case I have mentioned emphasizes the point that is being more recognized every day, viz.: that the disability after a Colles's fracture depends not upon irregularity of the fractured surfaces or upon bad coaptation so much as upon adhesions in and around the wrist-joint, mainly in the tendon sheaths surrounding the joint, and the same case shows how, in spite of every marked deformity, the use of the hand and the wrist can be perfectly preserved by the painstaking application of massage and passive movement.

A safe way of treating this form of fracture is to set the bone as accurately as possible after having reduced any impaction present, preferably under an anesthetic. An anesthetic is not absolutely necessary in these cases, but is always advisable, as, owing to the proximity of the wrist-joint, perfect coaptation is important. After reduction has once been properly effected there is little tendency for the recurrence of the displacement, as the fractured surfaces are quite broad and not easily displaced from one another. As to splints, the form in common use known as Carr's is, perhaps, the most comfortable but straight anterior and posterior splints do equally as well provided that the former does not reach lower down than the transverse crease of the palm. Massage over the seat of the fracture applied to the dorsal aspect of the limb should be used from the time the limb is secured on the splint, and at the same time active and passive movements of the fingers should be practised. The black splint must, of course, be removed to allow of the massage. Before the end of the first week passive movement should be made in the wrist; at first the joint is merely extended as it lies on the splint, while the seat of the fracture is steadied by the other hand, but by the seventh day the limb may be taken right off the splint, the seat of the fracture grasped in one hand and passive movements of the wrist made with the other. Some time during the third week it will be possible to leave off the splint altogether, the arm being carried in a sling and perhaps being supported by a good firm leather wristlet. Active movement of the wrist-joint should be encouraged from the end of the first week.

Editorials.

STRICTER RULES FOR POST OFFICES.

The Postmaster-General of Canada has determined to put an end to the circulation through the mails of magazines, books, or publications of any kind, which contain anything of an immoral or indecent character. Recently a monthly magazine was prohibited for lampooning members of the medical profession and publishing indecent advertisements. It seems now, from careful examination, that there are many magazines of this class being circulated, which has led to the issue of the following notice:

"If it is established to the satisfaction of the Postmaster-General that any person is engaged or represents himself as engaged in the business of publishing any obscene or immoral books, pamphlets, pictures, prints, engravings, lithographs, photographs, or other publications, matter or thing of an indecent, immoral, seditious, disloyal, scurrilous or libelous character, or in the business of an illegal lottery, so-called gift concerts, or other similar enterprise offering prizes or concerning schemes devised or intended to deceive and defraud the public for the purpose of obtaining money under false pretences, or in the business of selling or in anywise disposing of counterfeit money or what is commonly called 'green goods,' or of drugs, medicines, instruments, books, papers, pamphlets, recipes, prescriptions, or other things with the object, or with the pretended object of committing a crime, and if such person shall, in the opinion of the Postmaster-General, endeavor to use the Post-office for the promotion of such business, it is hereby declared that no letter, packet, parcel, newspaper, book, or other thing sent or sought to be sent through the Post-office by or on behalf of or to or on behalf of such person, shall be deemed mailable matter."

FUNCTION OF THE CORPUS LUTEUM.

Physiologists have puzzled over the question of ovulation and menstruation for many years with little success till last year, when Frænkel published Gustav Boru's posthumous work. Boru gathered together the various facts that were known, such as the difference in appearance between the so-called true and false corpus luteum, and also the intimate relationship of the growth of the corpus luteum and the growth of the pregnant uterus, both occurring in the early months of gestation. When the corpus luteum begins to disappear, the uterus ceases to grow at such a rapid rate as previously, the increase in size being due now to the growth of the fetus. Then, too, the histological structure of the corpus resembled a gland.

From a consideration of these and other well-known facts, Boru came to the conclusion that the corpus luteum elaborated an internal secretion. He formed plans for proving his theory by experiments. His untimely and lamented death prevented their execution, but he was able, in his last illness, to commit his ideas to the safe keeping of Frænkel, who a few months ago completed the observations.

Using rabbits for his experiments because their generative cycle has been thoroughly studied, he found that the removal of the ovary early in pregnancy prevented maturation of the ovum. By burning out the corpus luteum, and leaving the rest of the ovary intact, he could accomplish the same thing, the effect being brought about through an atrophy of the uterus.

From many such experiments, he found that the corpus luteum gave rise to a secretion which in some as yet unknown way accomplished favorable conditions for the implantation of the ovum, and afterwards for the growth of both the ovum and the uterus. The absence of this secretion would probably account for the abortions so common in women with ovarian tumors, the new growth having involved the corpus luteum.

To ascertain the relationship of these bodies to menstruation the corpora lutea of menstruation found in women who were undergoing operation, were burned out, with the result that in eight out of nine cases, the next monthly period was missed. This seems to indicate that, in some way not understood, the

corpus luteum of one month causes the menstruation of the next.

To apply these results to practical use, was Frænkel's next endeavor. He administered lutein tissue from the cow to women in whom the operative menopause had produced unfavorable symptoms, and was able thus to ameliorate their condition, and thus further establish his experimental conclusions.

"DO YE NEXTE THYNGE."

The next thing to improve the health of towns and cities in Ontario is to improve the milk supply. It is not satisfactory. In Great Britain great attention is directed at present to this thing, and great efforts are being made to improve the milk supply. Dr. Pierce, Medical Officer of Health for Guildford and Woking, finding himself face to face with an extensive epidemic of fever and sore throat in his kingdom, presented to the Woking Urban District Council on November 28th a report, in which he mentioned that ninety-eight houses were infected with this epidemic, and further described a visit made by him to a certain farm to which the infection had been traced. He was accompanied by Mr. Wild, Veterinary Inspector to the Council. Mr. Wild milked the twenty cows on the farm, keeping the milk from each teat separate, and in the case of two of the cows the milk "consisted for the most part of pus, such as would be contained in an abscess"!

The information was also elicited that the farmer and his family had recently suffered from sore throats.

In many of the cities and towns of the United States, Milk Commissioners are at work and the milk supply has thus been greatly improved.

Dr. Sheard, Medical Health Officer of Toronto, has done good work in this direction, but it is manifestly impossible that the ordinary staff of any Health Department can adequately attend to this matter.

Under the heading, "Pus as a Beverage," the *British Medical Journal* publishes an editorial which concludes as follows: "With mothers and housekeepers lies the handling of this

national problem. If a few ladies in every town would take up the question, would insist on their milkman telling them where the milk they give their children comes from, and would give a day or two to visiting the farms, we believe that, so far as the milkmen who supply the wealthier classes are concerned, the problem would solve itself, we had almost said, in a month. And we do not believe that these ladies, having set their own milk supply in order, would rest content until they had effected a like reform for the milk supplied to the poor. It is really a question of supply and demand; if housekeepers insist on having clean milk it will be supplied, and it will be supplied at the same price to the public, and at much the same rate of profit to the farmer and milkman as now. This has been amply proved by the experience of a few companies. We appeal to women to look into the facts and to act before next summer."

PORTRAIT OF PROFESSOR GOLDWIN SMITH.

Mr. John Ross Robertson, of Toronto, has presented to the University of Toronto a portrait of Professor Goldwin Smith. Professor Clark, of Trinity University, on behalf of Mr. Robertson, who is now in Egypt, unveiled the portrait in the library and formally presented it to the University, January 23rd. In doing so he paid a high tribute to Professor Smith's eminence as a scholar, a publicist and a citizen of Toronto. At Oxford he "took everything in sight" in the way of honors and prizes. He afterwards filled the chair of Modern History in his own university until he resigned to come to America. During the last thirty years he has elevated the literary tone of Toronto and the whole Province of Ontario.

President Loudon, in accepting the portrait on behalf of the University, said he considered it fitting that the portrait of so great a writer and thinker should adorn the walls of this library as his works adorn the shelves of the room behind. He came to Toronto at a critical time in the University's history, and as a member of its Senate for a considerable time did much to assist in the great advances made in scientific teaching. Professor Smith delivered a short address, in which he expressed the great pleasure he had always felt in his connection with the University.

THE VISIT OF PROFESSOR HALIBURTON.

Fortunate, indeed, has been the lot of the students of the medical faculty of the University of Toronto this year. They have received the advantages of the strength arising from amalgamation. They have for their work-place the fine new building with its commodious lecture rooms and bright laboratories. And in the third place they have had the opportunity of seeing and hearing many celebrated workers in the different fields of medical science.

The visit of the distinguished physiologist of King's College, London, England, to this city, on January 22nd, was a sudden but very much appreciated addition to the list of treats of this remarkable term. Professor Haliburton, who is well known to the student body, as the editor of the later editions of "Kirke's Physiology," and to scientists as the author of two widely recognized works on chemistry in relation to physiology, crossed the waters to deliver the course of Herter lectures before the Bellevue Hospital Medical School, New York City.

The subject of the lecture given here was "Nerve Degeneration and Regeneration." The theme of the study was that along with histological changes in degenerated nerve tissues there occur also chemical changes, and that evidence of these latter may be found in certain of the general body fluids. The most demonstrable chemical result of the breaking down nervous tissue is *choline*, a product of *lecithin*. This substance may be obtained from the blood or cerebro-spinal fluid, under conditions of injury to the nervous system, in the form of eight sided crystals, by means of absolute alcohol and platinum chloride.

A series of excellent micro-photographs was projected on the screen to illustrate an experiment in a number of cats in which the sciatic nerves had been cut and in which death had been brought about at different periods for the study of these injured structures.

On one hand was shown the histological condition of the nerve, and on the other the chart of the animal's blood pressure before death. It was seen that the greatest effect on the latter (due to choline) was in the case of the cat killed during the

height of degeneration of the sciatic, while in those killed during regeneration of the nerve there was a steadily diminishing amount of influence on the vascular system.

The clinical bearing of this substance choline is that it may be found in the blood and cerebro-spinal fluid of man in the presence of organic diseases of the nervous system, such as general paresis. It has also been found that it occurs with neurasthenia, though it has been vainly sought in hysteria.

Professor Haliburton is a most finished lecturer and was followed closely by the large assembly. Though to many of his hearers choline was a new name, it has been known and searched for clinically in Toronto for several years. His announcement of it was some little time ago. Professor Haliburton spent several days in this city.

PATHOLOGICAL DEPARTMENT, UNIVERSITY OF TORONTO.

In regard to the question of the payment of fees for work done in the Pathological Department by members of the pathological staff, the following report of a committee appointed to consider the matter has been adopted by the Faculty:—

It is to be understood that work done in the Pathological Department may be divided into two classes:

First—Work which is of general or special scientific interest, the investigation of which may be of value in the prosecution of pathological research, or for the purposes of advancing the clinical education of the students.

Second—Work the results of which are used by the practitioner for the purposes of diagnosis or control and treatment of his case.

In regard to the former class, it is to be understood that members of the pathological staff welcome the opportunity for such investigation and desire to impress upon members of the Faculty the advisability of sending in to the laboratory all such material.

In the latter class it is felt the work of the laboratory should be considered in the light of a consultation, and as con-

sultations in practice are regularly paid for when the patient is able to pay, it seems but just that similar fees should be paid to the pathologist making such examinations.

In cases where the patient is unable to pay the full consultation fee for an examination he should pay in proportion to the fee paid to his practitioner.

In regard to the amount of the full fee the following scale is suggested as an adequate remuneration:

Throat exudates	$5.00
Sputum	5.00
Widal tests, $2.00 per test, or $5.00 per case where several tests are necessary.	
Blood counts including differential counts of leucocytes and hemoglobin estimation	10.00
Stomach contents	5.00
Uterine scrapings and tissue examinations, up to	10.00
Urine analysis	5.00
Urine analysis when examination for bacillus of tuberculosis necessitating an inoculation	10.00

ONTARIO MEDICAL ASSOCIATION.

The following committees have been appointed for the next meeting of the Ontario Medical Assocation:

COMMITTEE ON PAPERS AND BUSINESS.

Drs. A. A. Macdonald, G. A. Bingham, W. J. Wilson, G. Chambers, J. Caven, N. A. Powell, J. T. Fotheringham, T. F. McMahon, R. D. Rudolf and H. Parsons.

CORRESPONDING MEMBERS OF COMMITTEE ON PAPERS AND BUSINESS.

Dr. McNulty, Peterboro'; Dr. John Sheahan, St. Catharines; Dr. Jas. A. Ashbough, Windsor; Dr. W. T. Parke, Woodstock; Dr. Jas. Third, Kingston; Dr. R. W. Garrett, Toronto; Dr. H. S. Griffin, Hamilton; Dr. H. A. McCallum, London; Dr. J. D. Courtenay, Ottawa; Dr. Perry Goldsmith, Belleville; Dr. Angus McKinnon, Guelph; Dr. J. L. Bray, Chatham; Dr.

T. H. Middlebro, Owen Sound; Dr. Arthur, Collingwood; Dr. J. C. Smith, Barrie; Dr. W. C. Gilchrist, Orillia; Dr. Frank Lawrence, St. Thomas; Dr. L. Ashton, Brantford; Dr. D. B. Frazer, Stratford; Dr. R. A. Bowie, Brockville.

COMMITTEE OF ARRANGEMENTS.

Drs. A. Baines, H. J. Hamilton, W. B. Thistle, A. H. Garratt, E. E. King, A. Eadie, H. A. Bruce, W. H. Pepler, B. L. Riordan, A. Primrose, D. J. G. Wishart, J. M. Cotton, C. J. Hastings, J. B. Gullen, R. J. Dwyer and F. Fenton.

HOSPITAL ABUSE.

Drs. W. J. Wilson, R. A. Reeve, C. J. Hastings, E. J. Barrick, A. A. Macdonald, C. Sheard and G. A. Bingham.

NECROLOGY.

Drs. A. Primrose, J. McCullough and A. H. Howitt.

AUDIT.

Drs. D. J. G. Wishart, C. H. Carveth and G. Elliott.

Port Huron, Mich., is to have a $25,000 hospital, and has already collected $10,000 of the amount.

Dr. D. C. Gilman has announced his intention of resigning the presidency of the Carnegie Institute at Washington next year.

Smallpox as officially reported in the United States for the period from June 27th, 1903, to December 4th, 1903, amounts to 11,908 cases, with 491 deaths, as against 14,262 cases, with 729 deaths, in the corresponding period of last year.

The thirty-seventh annual meeting of the Canadian Medical Association will be held at Vancouver, B.C., on the 23rd, 24th, 25th and 26th of August, 1904, under the presidency of Dr. Simon J. Tunstall of that city. Mr. Mayo Robson will be a guest of the Association.

Dr. George McDonough left Toronto, February 8th, for the West Indies, and will return and resume practice about March 27th.

Dr. J. H. C. Willoughby, of Saskatoon, N.W.T., visited Toronto early in February.

Personals.

Dr. C. H. Britton has been appointed Medical Health Officer of East Toronto.

Dr. Harry M. Torrington (Tor. '03) is practising at Greenspond, Newfoundland.

Dr. W. G. Anglin, of Kingston, is recovering from a severe attack of septicemia.

Dr. J. H. Hamilton is Resident Physician in the Kootenay Lake General Hospital at Nelson, B.C.

Dr. Jas. F. W. Ross, of Toronto, when last heard from had visited Khartoum and was returning to Alexandria.

Dr. W. H. K. Anderson (Tor. '97), formerly of Ottawa, now of Vancouver, visited Toronto January 26th.

Dr. T. J. Norman (McGill, '87) has been appointed Assistant Superintendent at Orillia in place of Dr. Moher, promoted.

Dr. W. O. Eastwood, who graduated in Arts, 1849, and in Medicine, 1853, University of Toronto, is still in active practice in Whitby.

Dr. Freeman has been placed in charge of the Hamilton General Hospital and is expected to hold the position until another superintendent has been appointed.

Dr. Vrooman, M.P., of South Victoria, is in the Toronto General Hospital recovering satisfactorily from an appendicectony performed, January 25th.

Dr. Helen MacMurchy has been elected President of the "Old Girls' Association" of the Jarvis Street Collegiate Institute, Toronto.

Dr. W. Hackney (Tor. '98) M.R.C.S., Eng., formerly of Mitchell, has passed the first examination for Fellowship of the Royal College of Surgeons, England.

Dr. Jas. G. Cranston, Mayor of Arnprior, was presented with a silver tea set, January 20th, in acknowledgment of his services as chairman of the Board of Education for thirty-five years.

Dr. J. C. Mitchell will leave Toronto in April to visit certain epileptic hospitals in Great Britain. After remaining for some time in London and Edinburgh he will pay a short visit to the Continent.

Dr. C. A. Hodgetts has been appointed Deputy Registrar General of Ontario and Secretary of the Provincial Board of Health in the place of Dr. P. H. Bryce, and will also continue to act as Medical Health Inspector. Dr. Hodgetts has been in the health department for eight years, and has done much admirable work, especially in connection with small-pox. We are glad to be able to say that the appointment has given general satisfaction to the physicians of Ontario.

Dr. Peter H. Bryce, Secretary of the Provincial Board of Health, Ontario, for twenty-one years, has been appointed Inspector of Immigration of the Interior by the Dominion Government.

Dr. Arthur T. Emmerson (Trin. '89), who has been practising for the last thirteen years in Claude, County of Peel, is now doing some work in the University laboratories. He expects to go abroad in a few weeks.

Dr. Thos. J. Moher (Trin. '89), Assistant Superintendent of the Asylum for the Feeble-minded at Orillia, has been appointed Medical Superintendent of the Asylum for Insane, Brockville, in the place of Dr. Murphy, deceased.

Dr. Langrill, who was recently elected Superintendent of the Hamilton General Hospital, and accepted the appointment, has, with the permission of the Hospital Governors, withdrawn his acceptance and will continue to be Medicai Health Officer of the city.

The by-law favoring the establishment of a sanitarium for consumptives in Toronto was carried on January 1st, the vote being as follows: for, 4,070; against, 3,880. This means that the city will give $50,000 towards the institution as soon as a similar amount has been raised by private benefactions.

Dr. Byron Field, of New Liskeard, has been appointed a Coroner for the District of Nipissing; Dr. C. McL. Lang, of Owen Sound, Coroner for County of Grey; Dr. John Marty, of New Hamburg, Coroner for County of Waterloo, and Dr. Albert F. Reynar, of Palgrave, Coroner for the County of Peel.

Dr. Orlando Orr, who left Toronto for New York December 28th, remained only a few days in the latter city. Early in January he went to England on business connected with the Toronto Industrial Exhibition. One of the results has been the engagement of the celebrated Black Watch Band for the next Toronto Fair.

The Southern Surgical and Gynecological Association, in session at Atlanta, Ga., on the 17th of December last, elected the following officers to serve for one year: President, Dr. Floyd W. McRae, of Atlanta; first vice-president, Dr. George S. Brown, of Birmingham, Ala.; second vice-president, Dr. Shelton Horsley, of Richmond, Va.; treasurer, Dr. Charles M. Rosser, of Dallas, Tex.; secretary, Dr. W. D. Haggard, of Nashville, Tenn., who was re-elected. The next meeting of the association will be held in Birmingham, Ala., on December 13, 14 and 15, 1904. At this meeting a statue erected in memory of Dr. W. E. B. Davis, founder, secretary and last President of the Association, will be unveiled.

Obituary.

MATTHEW FLETCHER HENRY, M.D.

Dr. M. F. Henry (Univ. Buffalo, '50) of Humberstone, Co. Welland, died December 3rd, aged 79.

THOMAS NORTON, M.D.

Dr. Thos. Norton, of Shelburne, Ont., died of cancer of the stomach, January 14th, aged 52. He was born in Montreal and graduated in McGill in 1874.

JOHN B. MURPHY, M.D.

Dr. J. B. Murphy, Superintendent of the Asylum for Insane Brockville, died suddenly from heart disease at his home, January 17th, aged 54. He graduated in medicine at Queen's College, Kingston, in 1876, and practised for a time in Belleville. He was appointed Superintendent of the Asylum for Insane at Mimico in 1891 and was transferred to Brockville in 1894.

ROBERT LAMBERT, M.D.

Dr. R. Lambert, the oldest physician in Windsor, died Jan. 22nd, aged 76. He was a graduate of Queen's University, Kingston, in 1859, and practised in Windsor for more than forty years. He was for some years Medical Health Officer in that city.

JOHN HERBERT SANGSTER, M.A., M.D.

Dr. J. H. Sangster, of Port Perry, died suddenly at the King Edward Hotel, Toronto, January 27th, aged 72. Heart disease is said to have been the cause of death. Dr. Sangster was born in London, England, but came to Canada with his parents when quite young. He received his early education at Upper Canada College and the Provincial Normal School. At the age of 17, he became one of the teachers of the Provincial Model School

in Toronto. When 22 years of age he went to Hamilton and was for some years head master of the Central School of that city. At the age of 27 he became first master in the Provincial Grammar School in Toronto, and in the following year (1859) became Lecturer in Science and Mathematics in the Normal School. While occupying this position he went through a course in Arts and Medicine in Victoria University, becoming M.A. in 1861 and M.D. in 1864. He became Head Master of the Normal School, and also Professor of Chemistry and Botany in Victoria in 1865, at the age of 34. He resigned these positions in 1871 and went to Chicago, where he remained about one year and a half. Between 1858 and 1871 he wrote and published a number of school books which became the authorized text-books for the public schools of the Province.

He decided to engage in active practice in his profession in 1875 and went to Port Perry, where he practised as a physician up to the day before his death. He was elected a member of the Ontario Medical Council in 1894, and was well known as the leader of the Medical Defence Association of Ontario. He was a man of varied talents, and showed rare ability as an educationist, an author of text-books, a newspaper writer, a platform speaker, a debater, and a physician. He had strong opinions and always the courage of his convictions. His combative instincts were developed to such an extent that he became a strong controversialist on many public questions, and in that way made a certain number of enemies ; but as a general rule he was respected by friend and foe. He will long be remembered as one of Canada's most gifted sons.

E. GRAVES KITTSON, M.D.

Dr. Kittson, of Hamilton, died suddenly, February 4th, aged 52. He was a graduate of McGill, Montreal, 1873, and became a Licentiate of the Royal College of Physicians. London, in 1879. After he returned from England he settled in Hamilton, and remained there up to the time of his death. On account of ill-health he had not been engaged in practice for the last ten years.

Book Reviews.

The Prevention of Consumption. By Alfred Hillier, M.D., C.M., B.A., Secretary to the National Association for the Prevention of Consumption, London; Member of the Council of the International Association for the Prevention of Tuberculosis, Berlin; Visiting Physician to the London Open-Air Sanatorium. Revised by Prof. Robert Koch. Illustrated. Longmans, Green & Co., 39 Paternoster Row, London, New York and Bombay, 1903. Price, 5 shillings.

This is a small book intended for popular reading, dealing with the prevention of tuberculosis in a thoroughly scientific way, and yet in such simple language that any intelligent person can understand it. The authors emphasise the fact that phthisis is very often a disease due to ignorance, and that since the wider recognition of its infectiousness, with the resulting precautions, the death rate has slowly diminished: therefore the great necessity for such a volume as this, which should be in the hands of every adult in the land, especially those who, by reason of their family history or their occupation, have a tendency towards the disease.

Clinical Examination of the Urine and Urinary Diagnosis.—By J. Bergen Ogden, formerly Instructor in Chemistry, Harvard University Medical School, Boston; Assistant in Clinical Pathology, Boston City Hospital, etc. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth $3.00 net. Second Edition, Thoroughly Revised. Toronto: J. A. Carveth & Co.

This book has already taken its place among the best works on the subject. There is no similar book which is equally valuable on the question of diagnosis in this particular branch of medicine, and both students and physicians will find it a satisfactory authority. Part I. deals with the chemistry, physiology and working methods. Part II. is devoted to diagnosis. This second edition has been carefully revised and recent advances in the knowledge of the subject have been incorporated. Thus Cryoscopy, Boxybutyric Acid, and other matters are dealt with, and changes have been made in the sections devoted to urea, uric acid, and total nitrogen.

Transactions of the Southern Surgical and Gynecological Association.—Volume XV. Fifteenth Section held at Cincinnati, Ohio, November 11th, 12th and 13th, 1902. Edited by W. D. Haggard, M.D.

In November, 1886, a few prominent physicians of Birmingham, Alabama, met for the purpose of organizing the Alabama Surgical and Gynecological Association. As a result the Association had a meeting October 11th and 12th, in Birmingham,

Dr. Rosser being President, and Dr. W. E. B. Davis, Secretary. At this meeting the larger Southern Association was organized, Dr. W. D. Haggard of Nashville being elected President, and Dr. Davis Secretary. The phenomenal success of this great Association was largely due to the untiring exertions of Dr. Davis, who was Secretary for twelve years until 1900, and President in 1902. His untimely death last February, from an accident, caused the deepest grief among the members. Since 1900 Dr. W. D. Haggard, son of the first President, has proved a worthy successor to Dr. Davis in the Secretaryship. The report of the meeting of 1902 is one of the most interesting in the history of the Association.

High Frequency Currents in the Treatment of Some Diseases. By CHISHOLM WILLIAMS, F.R.C.S., Edin. Member of the Royal College of Surgeons, Eng. ; Licentiate Royal College of Physicians, Lond. ; Licentiate Society of Apothecaries, Lond. ; Electro-Therapeutist West London Hospital, W. ; Surgeon Out-Patients City Orthopædic Hospital, E.C. ; Honorary Secretary British Electro-Therapeutic Society, etc. London : Rebman, Limited, 129 Shaftesbury Avenue, Cambridge Circus, W. C., 1903. Canadian Representative, Charles E. Wingate, 186 Adelaide Street, W., Toronto.

We have before us the first work to appear, in the English language, on the Electric High Frequency Currents. These are the currents described by the French investigator, T'Arsonval, and bear his name. The English have been rather slow in adopting this line of treatment, but having begun, it will be thoroughly investigated. The advent of the present volume, no doubt, will aid in its being more freely taken advantage of. Workers in the X-ray field can very readily equip themselves with the necessary additional apparatus, and greatly augment their field of usefulness. This volume is describing a new electrical field, and it is proper that a very full and complete description should be given of the appliances. These descriptive chapters are short, clear and concise, yet not too brief. Then the Physical and Physiological characteristics of the current are described, and finally the therapeutical applications. In all new methods of treatment, and this is a new method in England and America, although in France and Germany, many years old, the tendency is to look upon them as a panacea for every ill. Dr. Williams is altogether too careful an investigator to let one run off with this idea. He has written the book based on the experience of himself and others, and he warns us against falling into any such error as that of expecting too much. Yet encourages the investigator, and only recommends where he has proven the value of the treatment.

We can recommend the little volume to all readers, not only those who are interested in electricity as a means of treatment,

but those who should be in a position to advise their patients where to look for proper treatment, if they do not possess the necessary appliances themselves.

The typography, illustrations, paper and binding are in the usual fine style of the Rebman Company.

Modern Surgery: General and Operative. By JOHN CHALMERS DACOSTA, M.D., Professor of the Principles of Surgery and of Clinical Surgery in the Jefferson Medical College, Philadelphia. Handsome octavo volume of 1099 pages, with over 700 illustrations, some in colors. Philadelphia, New York, London; W. B. Saunders & Company, 1903. Canadian Agents: J. A Carveth & Co., Limited, Toronto. Cloth, $5.00 net; Sheep or Half Morocco, $6.00 net.

This work presents in a concise form the fundamental principles and the accepted methods of modern surgery. Obsolete and unessential methods have been excluded in favor of the living and the essential. The author's extensive experience as a teacher is evident throughout the entire work, the statements being clear and to the point.

The progress of surgery in every department is one of the most notable phenomena of the present day. So many improvements, discoveries, and observations have been made since the appearance of the last edition of this work that the author found it necessary to rewrite it entirely. In this fourth edition the book shows evidences of a thorough and careful revision, and there has been added much new matter. There have also been added over two hundred excellent and practical illustrations, greatly increasing the value of the work. The book will be found to express the latest advances in the art and science of surgery. We certainly recommend it.

Medical Jurisprudence, Insanity, and Toxicology. By HENRY C. CHAPMAN, M.D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College, Philadelphia. Third Edition, thoroughly revised, greatly enlarged, and entirely reset. Handsome 12mo volume of 329 pages, fully illustrated, including four colored plates. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, $1.75 net. Canadian Agents: J. A. Carveth & Co., Limited, 413-415 Parliament Street, Toronto.

This work is based on the author's practical experience as Coroner's Physician of the City of Philadelphia for a period of six years. Dr. Chapman's book, therefore, is of unusual value to the medical and legal professions, presenting, as it does, the information gained from active participation in medico-legal cases. This third edition, enlarged by the addition of new matter to the extent of seventy-five pages, has been entirely reset, and it is evident that in its preparation every page has undergone a careful scrutiny, so as to include the very latest

advances in this important branch of medical science. Much of the matter has been rearranged, the text has been more fully illuminated by additional references to cases, and a number of new figures and tables have been added.

In reviewing this excellent work we have found that it covers the field completely and thoroughly, nothing of practical importance to the physician or lawyer having been omitted. In our opinion, there is no doubt that the work will meet with as great favor as the previous edition—a popularity which it certainly deserves.

Organic and Physiologic Chemistry—a Manual for Students and Practitioners. By ALEXIS MCGLANNAN, M.D., Associate Professor of Physiologic Chemistry, etc., College of Physicians and Surgeons, Baltimore, Md. Series edited by V. C. PEDERSEN, A.M., M.D., Instructor in Surgery and Anesthetist, New York Polyclinic Medical School and Hospital. Illustrated with nine engravings Philadelphia and New York: Lea Brothers & Co. Medical Epitome Series.

In 250 pages the author has boiled down the facts of essential importance to the medical student, and yet has avoided the baldness of style so characteristic of Quizz-compends. The book admirably fulfils the purpose for which it is intended, and is equal to the others of the Epitome Series.

Atlas of the External Diseases of the Eye, including a Brief Treatise on the Pathology and Treatment. By PROF. DR. O. HAAB, of Zurich. Authorized translation from the German. Second Edition revised. Edited by G. E. de SCHWEINITZ, A.M., M.D., Prof. of Ophthalmology in the University of Pennsylvania, etc., etc. Ninety-eight colored lithographic illustrations on 48 plates. Philadelphia, New York and London: W. B. Saunders & Co. 1903. Canadian Agents: J. A. Carveth & Co., Toronto. Price, $3.00.

This is another of the translations of the world-famous Lehmann "Medicinische Landatlanten," which for accuracy, beauty, and cheapness, surpass anything else in the world, and this volume keeps up the reputation of its predecessors. In fact, the illustrations are even better than those in the other atlases which this firm have issued. It is a book which every practitioner and every student finds absolutely necessary in his everyday work.

The Practical Care of the Baby. By THERON WENDELL KILMER, M.D., Associate Professor of Diseases of Children in the New York School of Clinical Medicine: Assistant Physician to the Out-Patient Department of the Babies' Hospital, New York; Attending Physician to the Children's Department of the West Side German Dispensary, New York. 12mo. Pages xiv-158, with 68 illustrations. Extra cloth, $1.00, net, delivered. Philadelphia: F. A. Davis Company, 1914-16 Cherry Street, Publishers.

This is a book of 158 pages neatly bound and well illustrated, intended for nurses and mothers, and admirably suited to their needs. Dr. Kilmer emphasizes on every page the practical side of baby's care, by making his directions so clear that no one

can mistake his meaning. Full of all kinds of useful information, especially about that important subject, infant feeding, it should be in every nursery.

"Handbook of Diseases of the Middle Ear." By RICHARD LAKE, F.R.C.S., Surgeon to the Royal Ear Hospital and Metropolitan Ear, Nose and Throat Hospital, London, England.

As a compendium of diseases of the ear, this work is both succinct and complete, and is thoroughly up to date. It is clear and practical, and not overburdened with nomenclature, nor history of cases, nor long disquisitions. It consists of plain straightforward teaching, designed for advanced students and busy practitioners; and put so clearly that he who runs may read. The appendix contains many valuable formulæ for prescriptions. There are in the work three colored plates and fifty-four illustrations, all the pathological ones being original. The book contains 232 pages, is small and well gotten up. The publishers are Balliere, Tindall & Cox, of London, Eng. P. B.

Roger on Infectious Diseases. Their Etiology, Diagnosis and Treatment. By G. H. ROGER, Professor Extraordinary in the Faculty of Medicine of Paris, etc., translated by M. S. GABRIEL, M.D., New York. In one octavo volume, of 864 pages, with 43 illustrations. Cloth, $5.75, net. Lea Brothers & Co., Philadelphia and New York, 1903.

This volume comprehends almost the entire scope of internal medicine and touches upon many of the principles underlying modern surgery as well. It could not have been prepared by a laboratory investigator however brilliant, nor by a clinician however extensive his experience; its creation remained for one who combines the instincts and training of a student in original research with almost unprecedented opportunities for clinical investigation.

Never losing sight of the fact that the purpose of the laboratory is to amplify and explain clinical observations, Professor Roger has pursued clinical and experimental researches in the closest relation to each other. In this work he unfolds the knowledge of his subject by simple and practical methods. He first studies the pathogenic agents, inquires into their distribution in nature, the conditions under which they attack man and their modes of invasion. Full consideration is then given to their influence upon the human economy and the reaction of the latter upon the invaders. Ample time and space are devoted to questions of diagnosis and prognosis and that the work is eminently practical is shown by the fact that more than a quarter of the volume is devoted to treatment both preventive and curative.

Professor Roger has had opportunities for the study of infectious diseases which rarely fall to the lot of any man. In the hospitals under his charge are received all cases of con-

tagious diseases which occur in Paris and he has personally attended more than 10,000 patients during a period of five years. The effect and purpose of this work is to harmonize any seeming antagonism between experimental researches and clinical observation and to reduce the theories of infection and immunity to a basis of practical utility.

Progressive Medicine, Vol. IV, December, 1903. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 434 pages, 46 illustrations. Lea Brothers & Co., Publishers, Philadelphia and New York.

The completing volume of "Progressive Medicine" for the year 1903 contains some of the most important contributions of the series. Dr. J. C. Hemmeter's article on Diseases of the Digestive Tract is really a monograph, embodying the new physiology of digestion. The bacteriology of dysentery and the diarrheas of infants; the subject of intestinal parasites and the recent advances in the diagnosis and treatment of diseases of the liver and gall-bladder, are fully considered. Diseases of the pancreas have of late been exciting much attention, and Dr. Hemmeter has devoted considerable space to their discussion.

In the article on Surgery, by Dr. J. C. Bloodgood, of Johns Hopkins, there will be found a particularly interesting discussion of the entire field of anesthesia, both local and general, considered not only from the standpoint of the surgeon-specialist but also from that of the general practitioner.

Dr. Belfield's contribution on genito-urinary diseases covers the entire field in a most practical manner. Of special interest to the general practitioner will be found that part which deals with tuberculosis and other infections of the genito-urinary tract. The article on the prostate, especially on the treatment of hypertrophy of that organ, is of the highest interest.

In dealing with diseases of the kidneys, Dr. John Rose Bradford, of University College, London, presents an interesting discussion of the blood changes in chronic renal disease, and particular attention may be called to his able consideration of the surgical treatment of chronic Bright's disease.

The concluding section of the issue is taken up with the Practical Therapeutic Referendum, by Dr. Landis. It is a thorough, up-to-date index of the progress in therapeutics, treating not only of the drugs recently introduced to the profession, but also dealing fully with the physiological action and clinical uses of older remedies.

The publishers announce that, with the new year, the annual subscription price of "Progressive Medicine" will be reduced from $10 to $6, and that, for convenience in carriage, it will divest itself of the heavy cloth binding. The volumes will

each contain 300 pages, abundantly illustrated, and the work will continue to be issued under the same editorial management and with the same brilliant corps of contributors which have made it the indispensable assistant to the active, busy practitioner. The series of these volumes forms annually a practical treatise covering the entire domain of medicine and surgery.

Illustrated Review of Physiologic Therapeutics. A Medical Journal devoted to a review of the work of each month, placing a complete record of Clinical Methods and Progress at the command of Physicians who use Therapeutic Apparatus. By S. H. Monell, M.D., editor, New York City, 19 East Sixteenth Street. E. R. Pelton, Publisher. Postage free, $6.00 per year.

We wish to draw the attention of the profession to a new journal that made its appearance in January of this year. The journal starts out with 136 pages of reading matter, most copiously illustrated. The illustrations are of a very beautiful type, and are so thoroughly clear and well done that they are of real value. The letterpress is, as the title indicates, a review of all the articles appearing in a limited time on the subject. We look forward to a continuance of this journal under the widest support. The publisher has started out with the idea of illimiting advertising matter entirely from the journal, and depending upon the subscription list. We are anxiously waiting the result, and can only say that we sincerely hope that the publisher will not be disappointed in the support he receives from the profession. The subscription price is moderate for the book, $6.00 per year, with four issues, and will well repay the investment, but it seems to us that the subscription list will have to be exceedingly large to repay the publisher. The size of the journal is large, but not unweildy, and the paper and typography could not be excelled. We wish the new journal every success.

Portfolio of Dermochromes. By Professor Jacobi, of Freiburg in Breisgau. English adaptation of Text, by J. J. Pringle, M.B., F.R.C.P., Physician to the Department for Diseases of the Skin at the Middlesex Hospital. In [illegible] parts. London: Rebman, Limited, 129 Shaftesbury Avenue, Cambridge Circus. Toronto: Wingate, 186 Adelaide Street West.

With the appearance of parts three and four the portfolio of dermochromes is completed. The general appearance of the work is, if possible, better in the third and fourth parts than in the previous parts. The coloring and reproductions are, as we stated before, simply admirable. We have the eczemas, the acnes, and the parasite diseases shown in the third part, together with a half dozen plates on the drug rashes, which are absolutely true to the conditions found. The whole subject of skin diseases finishes up with these two parts. Part four deals with the subject of syphilis in all its many and varied forms: of course, it is a well recognized fact that any

form of skin disease may be simulated by syphilis. By the aid of these diagrams men who are kept away from large clinics can really fortify themselves in their diagnosis. These two volumes embrace such a wide scope of illustrative skin diseases that practitioners who meet with skin diseases at all frequently cannot afford to be without it as an atlas of reference. The moderate price at which it is placed before the profession places it within the reach of all. The typography and binding are all that one could wish for.

A Text-Book of Legal Medicine and Toxicology. Edited by FREDERICK PETERSON, M.D., Chief of Clinic, Nervous Department of the College of Physicians and Surgeons, New York; and WALTER S. HAINES, M.D., Professor of Chemistry, Pharmacy and Toxicology, Rush Medical College, in affiliation with the University of Chicago. Two imperial octavo volumes of about 750 pages each, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Per volume, cloth, $5.00, net; sheep or half morocco, $6.00, net. Canadian agents: J. A. Carveth & Co., Limited, 413 Parliament Street, Toronto.

This work presents to the medical and legal professions a comprehensive survey of forensic medicine and toxicology in moderate compass.

For convenience of reference the treatise has been divided into two sections, Part I and Part II, the latter being devoted to toxicology and all other portions of legal medicine in which laboratory investigation is an essential feature. Under "Expert Evidence" not only is advice given to medical experts, but suggestions are also made to attorneys as to the best methods of obtaining the desired information from the witness. The Bertillon and Greenleaf-Smart systems of identification are concisely and intelligently described, and the advantages of each stated. An interesting and important chapter is that on "The Destruction and Attempted Destruction of the Human Body by Fire and Chemicals:" for on the determination of the human or animal source of the remains frequently depends the legal conduct of a given case, and the guilt or innocence of the accused. A chapter not usually found in works on Legal Medicine, though of far more than passing significance to the medical expert and the attorney, is that on the medicolegal relations of the X-Rays. The responsibility of pharmacists in the compounding of prescriptions, in the selling of poisons, in substituting drugs other than those prescribed, etc., furnishes a chapter of the greatest interest to everyone concerned with questions of medical jurisprudence. Also included in the work is the enumeration of the laws of the various States relating to the commitment and retention of the insane. In fact, the entire work is overflowing with matters of the utmost importance, and expresses clearly, concisely and accurately the very latest opinions on all branches of forensic medicine and toxicology.

Selections.

What the Tuberculous Patient Should Know.

Stevens insists on the tuberculous patient coughing into a handkerchief, not coughing at all in the dining-room, never swallowing the expectoration, using an antiseptic mouth wash before each meal, and the careful cleansing of the hands, avoiding talking if it increases the cough, avoiding spitting into anything excepting a proper sputum receptacle, the thorough disinfection of whatever is soiled by the sputum, abstinence from kissing, taking exercise only under direction and none of a sporting character, taking none if the temperature is abnorml, if there is blood in the sputum or if losing in weight. Always stop before becoming tired, never run or get out of breath, and never lift or strain, avoid breathing exercises except those as specifically directed. If the temperature reaches 100 lie down, and if it reaches 101 undress and go to bed in earnest. Spend ten hours in bed each night, and retire early enough to finish your sleep before sunrise. Spend all the time possible in the open air. Keep the windows of the sleeping room open. Protect the head from the direct rays of the sun when taking outdoor rest cure, avoid dust, draughts, crowded and poorly ventilated rooms, and if you catch cold report at once to the physician. If the digestion is good use a generous mixed diet, taking no food between meals. Forced feeding, if necessary, must be under the direction of a physician. It is not the quantity eaten, but the quantity digested or assimilated that benefits. If not on the full diet, a light luncheon of milk and crackers, malted milk or raw egg should be taken regularly two or three hours after each meal, taking no food within less than two hours of a regular meal. Do not drink milk hastily. Sip it, eating something at the same time. Regularity of meals is essential. Take only such medicines as are prescribed and stop any that disturb the stomach; beware of sleep producers. Throw away any medicines that have been ordered discontinued. The clothing should be adapted to the individual; avoid chilling and overheating; wear nothing that interferes with respiration. Use sensible footwear, and no chest protectors. Unless there is special reason for not doing it, a cold sponge bath or shower bath should be taken each morning, and a full warm bath only once a week, rubbing the skin well with a coarse towel after the shower or sponge bath. Omit the cold baths during a pleurisy, or after a night sweat, or if the morning temperature is below 97 F., using a dry rub instead. Alcohol, if prescribed in exceptional cases, should be used the same as medicine and with the same care as to dose and time as with other medicines. Smoking should not

be indulged in, and chewing should be condemned for sanitary reasons, because it increases the tendency to expectoration. Co-operate with the medical adviser, make a business of getting well. Do not take too many suggestions from outsiders. The less one knows of a subject the more ready he is to advise. Avoid self-experimentation. Do not discuss your symptoms with other patients. If you do not trust your physician, change him.—*New York Medical Journal*, December 19th.

Bradycardia in Measles.

Burzi (*Gazz. degli Osped.*) relates the case of a healthy well-developed girl, aged 16, who had a severe attack of measles in February last. At the onset of the attack she complained of precordial pain, dyspnea worse on the least exertion, langour and dull pain in the heart. When first seen in February 25th she was very anemic, the heart's apex was a little inside the nipple line and on palpation gave the idea of two beats; there was no thrill or fremitus. On pressure in the third and fourth left intercostal space deep-seated pain was complained of by the patient. There were no murmurs, but the heart sounds were weakened and prolonged. The rate of the pulse varied from 38 to 32 per minute. The blood pressure was diminished. The liver was enlarged and there was some pretibial edema and a trace of albumen. This condition lasted a month unchanged and then slowly improved, and eventually the pulse came back to a rate of 64 to 68 per minute. The edema and slight albuminuria disappeared. During the period of bradycardia the patient also suffered from fainting attacks.—*British Medical Journal.*

Dangers of Stomach Inflation.

Three cases of death following stomach dilatation for diagnostic purposes with CO_2 gas are reported by Behrend. In the first case death resulted from hemorrhage at the base of the ulcer; in the second case the patient was prostrated from its use and never rallied, dying the following day. It was one of carcinoma of the esophagus and stomach with cholelithiasis and pericholecystitis in a very debilitated patient. The third case was in a man suffering from carcinoma of the esophagus and the patient was semi-conscious from the administration of the gas until the time of his death. He thinks that these cases show that the use of carbonic acid gas in inflating the stomach is rather a serious operation, infinitely more dangerous where there is a disease of the esophagus and the cardiac end of the stomach. This may be due to pressure exerted within the narrowed limits. If used, the procedure must be employed only with discretion and in selected cases.—*Medical News*, Dec. 19th.

Effect of Work on Temperature in Tuberculous Patients.

T. Neumann (*Norsk. Mag. for Laegevidenskaben*) says Penzoldt was the first to show that bodily exertion produced among tuberculous patients an increase of temperature which was insufficient to produce a rise of temperature in healthy subjects, and he considered such a rise to be of diagnostic importance. Hochsteter, Birgelen, and others have made special researches, and record the same results. The investigations of Ott in regard to this point were made in order to observe if this elevation was associated with any distinct causes. He considered that such was the case, as he frequently found albumose in the urine of patients in which it had been absent before the commencement of the work. He investigated 25 cases, of which 22 had a temperature of 38° C. before a quiet walk, but whose temperature rose to 38.8° C. immediately afterwards. Neumann considers that the rise of temperature is a distinct febrile phenomenon, as he found albumose in six cases where it was entirely absent before the walk commenced. In 11 cases, however, the rise of temperature was only slight.—*British Medical Journal.*

Koplik's Spots as an Early Symptom of Measles.

The opinions expressed as the significance of Koplik's spots in measles differ considerably, although the majority of observers regard the spots of diagnostic importance. M. Manasse (*Die Heilkunde*, vii, No. 10) has been able to see 48 cases of measles in a very early stage, and has watched for Koplik's spots. These spots are small bright red spots, with irregular shape and with bluish-white glittering centres, and occur especially opposite the molars on the buccal mucous membrane or on the palate. In 45 of his 48 cases the spots were well marked and appeared about twenty-four hours after the initial symptoms, and could be easily separated from the actual eruption of measles, which appeared two, three, four, and even five days after the beginning. In cases of rotheln and scarlatina the spots were not to be found, and he therefore comes to the conclusion that Koplik's spots are easily differentiated from the real exanthem of measles, and are seen in the majority of cases: when seen they form an important early diagnostic sign.—*British Medical Journal.*

At a meeting of the Faculty of Medicine of McGill University, Dr. Klotz, of Ottawa, was recommended to the governors for appointment as Governors' Fellow in Pathology at McGill. Dr. Klotz is a graduate of Toronto University, 1902, and for some time past has been conducting researches in bacteriology at the Ottawa Isolation Hospital. The appointment will officially be made at the next meeting of the board of governors.

The Canadian Practitioner and Review.

VOL. XXIX. TORONTO, MARCH, 1904. NO. 3.

Original Communications.

THE FORCEPS.*

By ADAM H. WRIGHT, B.A., M.D.
Professor of Obstetrics, University of Toronto.

Professor Japp Sinclair, of Manchester, came to Canada in 1897 and told us the obstetricians were the providers of material for the gynecologists through unskilful use of the midwifery forceps.

Bandelocque, on the other hand, has stated that the midwifery forceps is the most valuable instrument that has ever been invented. We believe the great mass of obstetricians in all civilized countries endorse this statement and conscientiously and intelligently use the forceps to shorten the suffering and diminish the risk of childbirth.

No one will deny that much injury is done in certain cases by the unskilful use of the forceps. According to Sinclair and those who agree with him, the common fault is the premature use of the forceps. Lapthorn Smith makes the very serious accusation that the doctors use the instrument early, without any regard to the condition of the parts, simply to save time. This is, of course, not a new charge, and we may admit that some physicians apply the forceps prematurely to save their own time and suit their own convenience. The man, however, who does such a thing is guilty of a criminal act. Premature use of the forceps is always dangerous. Make it a positive rule in practice never to use the forceps through a partially dilated os.

Milne Murray refers to a form of spasmodic rigidity which is especially dangerous for forceps delivery. For instance, a

* Read at meeting of the Hamilton Medical Society.

woman has been in labor many hours. After a time an examination during an interval between the pains shows the os soft and flabby, fairly well dilated or at least dilatable. Some chloroform is administered and the forceps are slipped over the head, of course, within the os. During the following pain the os becomes spasmodically contracted round the head and forceps, and not more than half its former apparent size. Dr. Murray considers such a condition an example of uterine inco-ordination, or uterine stammer. Traction under such circumstances will tear the cervix into the vaginal roof with sometimes most disastrous results. Careful examination, which should always be made during a pain as well as during the interval, will prevent you from making such a deplorable blunder.

While we should avoid the premature use of the forceps we should not go to the opposite extreme and fail to use them when necessary. In former times, when the forceps were used less frequently by the majority, and not at all by some, that horrible condition vesico-vaginal fistula was not uncommon. It is now comparatively rare. This is, however, telling a small part of the story. Dr. Murray says much in a few words when he tells us that by means of the forceps "we have saved women hundreds and thousands of weary hours and preserved countless children alive."

When forceps should be used. This brings us back to some considerations in connection with the management of the second stage of labor, which we desire to be as short as possible. When all the soft parts from cervix uteri to the vulva, inclusive, are softened and dilated or dilatable, we want quick delivery of the child. To accomplish this we use the forceps in certain cases. When shall we use them? This is not an easy question to answer definitely.

Milne Murray lays down a rule to which he attaches much importance. "A direct indication for the use of the forceps arises whenever, and only whenever we are assured that the danger of interference has become less than that of leaving the patient alone." He claims that this is more than a mere truism, inasmuch as it implies that the use of the forceps is nearly always a matter of individual judgment. He considers that there is no accepted set of rules which can be applied to each emergency.

At the Rotunda a definite time limit for the second stage has been recognized for several years. That limit, when I heard last, was four hours. The same limit was observed in St. Mary's and Queen Charlotte's Hospitals for some time, but in 1897 the maximum duration was altered from four to two hours. Many express the opinion that the time element alone is not a proper basis for such interference. I quite concur and

yet I believe firmly in the time limit, although I do not depend upon that alone. I also doubt whether any one at the Rotunda, St. Mary's or Queen Charlotte's depends on the time element alone.

A few weeks ago I saw a patient in consultation with a very competent and careful young practitioner. The parts, I was informed, had been fully dilated about eight hours. The doctor was trying to reach a conclusion whether or not the time had arrived "when the danger of interference had become less than that of leaving the patient alone." The patient, although tired, was not suffering acute pain. The time limitation, if observed, would have prevented such a serious mistake.

I think the maximum duration of the second stage should be three hours for primiparæ and two hours for multiparæ. This does not mean that in all cases one shall wait for the three or two hours; but it does mean that in no case shall he wait any longer. In a large proportion of cases it is neither necessary nor advisable to defer the application of the forceps for more than one hour after full dilation of the cervix, vagina and vulva. "When the passages are in a fit state and nature fails to advance the head, apply the forceps" (Simpson).

The lithotomy position for the patient is generally used in Canada, the United States and the Continent of Europe. We think it is much better than the left lateral, especially in cases of difficulty. We sympathize with those who object to undue exposure and cover the parts as well as possible.

It is generally advisable to fasten the thighs in the flexed position. I generally use for this purpose Robb's leg holder. One end is fastened to one leg below the knee. The rest of the band is passed over one shoulder, across the back, under the other shoulder and the other end of the band is fastened to the other leg below the knee. The old-fashioned sheet sling is also quite satisfactory.

The object of Tarnier in making his axis-traction forceps was to have it so adjusted that the force in traction should always lie in the true axis of the pelvis at all its planes, and that no part of that force should be either wasted or used in such a way as to cause injury.

We can understand a part of this better by considering the action of the ordinary long forceps when applied at the superior strait. The axis of the superior strait points towards the lower part of the sacrum. The perineum, the coccyx, and a small portion being in front of the axis of the brim prevent the handles from being pushed back sufficiently far to allow direct traction. Consequently part of the force of traction is wasted in dragging the head against the symphysis pubis. This defect in the ordinary long forceps was clearly recognized

more than one hundred years ago, and many devices were tried to overcome the difficulty with a certain amount of success.

Tarnier solved the problem in 1877 by attaching one traction rod to each blade of the forceps, and fastening both rods to a handle or crossbar. His original instrument was rather clumsy, and he made many improvements in it before his death. Various slight modifications have been made in different parts of the world. As a rule all that are constructed on the Tarnier axis traction principle are good. But no such modification as the attachment of tapes by loops passed through the fenestræ by the blades, or the perineal curve of Galabin, is satisfactory. I fear that even Neville's forceps, so highly lauded by the Rotunda men, is not a true axis tractor.

I used the Milne Murray modification of Tarnier with much satisfaction for about ten years, but when in Paris two years ago I got the latest Tarnier forceps as recommended by Pinard. After using this excellent instrument for a time, and after a trial of Porter Mathews axis traction forceps, I have chosen the latter as the one which seems best suited for my own work.

Without any extended discussion I shall mention briefly some of the advantages of the axis traction forceps, quoting largely from Milne Murray:

The great advantage of its use at the brim is generally understood and admitted. In many cases the axis traction instrument will accomplish what the ordinary long forceps cannot do.

"For once they have proved their efficacy at the brim they have done so ten times in the cavity and twenty times at the outlet."

The blades grasp the head securely without producing dangerous compression.

Extraction is accomplished with comparative ease and without any waste of force.

To be sure of doing this you have only to preserve the proper relationship between the traction rods and the shanks.

By keeping the instrument on the head until delivery there will generally be less injury to the pelvic floor and perineum.

At no stage will the instrument prevent flexion and rotation of the child's head.

Method of application of the Porter Mathew's forceps.

The traction block and handle are laid aside at first, but the blades are applied with the traction rods in place. The patient is in the dorsal position.

Take the left blade in the left hand, the thumb in the angle of the traction rod, and the fingers encircling the traction rod

and handle, and keeping them close together. Introduce the fingers of the right hand into the vagina and apply the blade along the palms of them as in the ordinary forceps application.

The handle of this blade being kept back out of the way by an assistant, grasp the right blade in the right hand as follows: The traction rod is carried far enough forward to bring it in front of its handle, the fingers encircling the handle, the butterfly nut of the fixation screw is run to the end of its screw, and the screw itself turned out, away from the traction rod, and allowed to project between the first and second fingers; the traction rod is kept in position by gentle pressure with the thumb on the outer side of the angle, the rectangular part of the rod projects backward between the thumb and fingers. Grasping the blade thus it is applied like the second blade of the ordinary forceps; as the lock is closed the traction rod falls easily back into position behind its handle. The fixation screw is then turned into its place and the nut screwed home, not tightly, but just enough to keep the handles as closely together as they can be brought by gentle pressure with the hands. Then take the traction block, open its catch widely and run the butterfly nut out to the end of its screw. Then slip the block on to the rods, taking care that the catch is on the side next to the notches in them. Slip it up the rods, counting with the fingers three notches below it, and close the catch into the fourth notch, which is the position for normal pelves, and screw the nut home. For flat pelves the block is fixed in the fifth, sixth or seventh notch until that notch is found in which we get the best results on traction. For "small round pelvis" the block is fixed similarly at third or second. The handle is then hooked over the bar provided for that purpose, not over the catch. Traction is made keeping the traction rods just parallel with the handles, not pushing against them nor widely separated from them. All traction must be made with the handle, neither the traction rods nor the handles of the blades being touched. As the head comes down the handles will be found to turn upwards and forwards. This indicates the direction in which traction is to be made, and each change in position must therefore be closely followed by the traction rods.

In removing the forceps the traction block and handle is first removed. The fixation screw is then undone and turned outwards. The right traction rod is then carried in front of its handle, and the right blade removed in the reverse direction of its application. The left blade is similarly removed except that its traction rod does not need to be carried forward.

Before giving specific directions as to traction I wish to refer to a question of vast importance.

How shall the blades be applied?

According to many authorities in Great Britain and Germany our aim should be to so apply the blades that will be parallel to the sides of the mother's pelvis. Many obstetricians in France and America endeavor to apply the blades to the sides of the child's head without regard to the sides of the pelvis. The differences of opinion in certain communities are very decided. Take the University of Edinburgh for instance, where we find the extra-mural differing from the intra-mural teacher. The one tells us that it is largely the teaching and the practice of the British schools to apply the forceps, as far as possible, in relation to the pelvic transverse without reference to the position of the head. He, at the same time, expresses a positive opinion that this is wrong when the head is not properly rotated. The result of this practice is to obtain an oblique grasp of the head which causes difficulties in locking and other damages.

Even though locking be accomplished without injury, the head as it descends rotates, causing the edges of the blades, if there is no removal and readjustment, to do much damage to the outlet. Or the head descends without rotating and engages the outlet in the oblique with results still more disastrous. An author representing the other side of Edinburgh tells us that the long forceps are always applied laterally as to the pelvis, no regard being paid to the grasp of the head.

Dr. Murray prefers the French method and advises us to apply the blades to the bi-parietal diameter of the child's head wherever situated. As the head descends rotation brings the blades into the transverse diameter when the acciput comes to the front. The application of the blades to the sides of the head requires more care, but it is our duty to take what care is necessary for the benefit of the patient.

There is nothing new in these allegations, nor have I any doubt that they are correct. Notwithstanding my admiration for the French method, however, I have for years hesitated about recommending it unreservedly, nor am I prepared to do so now.

Why not adopt the French method in all cases? Because it requires more skill than the average obstetrician can acquire in a lifetime to accomplish it safely in a large proportion of cases. Strenuous efforts to apply the blades to the parietal diameter of the head in difficult cases are dangerous to both mother and child. A large proportion of obstetricians are convinced that theoretically the French method is excellent, but practically it is often dangerous and even impossible. At least such is my experience, and I have been endeavoring to carry it out for fifteen years.

You may, I think, act according to the following rules:

Try to ascertain the exact position of the child's head.

Endeavor to apply the blades to the sides of the head without regard to the sides of the pelvis, *i.e.*, employ the French method.

If you are not able to accomplish this, apply the blades laterally, as to the pelvis, but do not drag the head far before removing and readjusting the blades.

You will find it comparatively easy in certain cases to apply the blades to the sides of the head. If, for instance, the head is in the cavity of the pelvis with the occiput towards the left front you have only to introduce the blades so that the left blade will be slightly behind on the left side and the right blade slightly forward on the right side. Sometimes you can scarcely avoid doing this, to some extent, at least.

Traction. Seize the handle which is attached to the traction rods with the hand, and while pulling see that the rods and shanks are kept just touching or almost touching each other. While you are extracting the child you will find that the traction is exerted exactly in the right direction at all times as the head passes through the pelvis and emerges from the vulva

Flexion will be properly maintained, and when incomplete will frequently be promoted.

Rotation will be allowed.

The head will, so far as possible, be prevented from bearing too heavily on the pelvic floor.

The head will be lifted over the perineum.

As the head is brought through the vulva it will not be extended so as to cause the chin to cut through the perineum.

In using traction do not attempt to extract rapidly. You will remember that during normal labor after the vault of the head reaches the pelvic floor, its expulsion from the vulva should occupy at least from twenty to thirty minutes. Extraction with the forceps should occupy no less time.

Pull gently on the handle, as far as possible, during pains, and desist during the intervals between them. If you cannot detect uterine contractions pull intermittently. Endeavor to extract with the smallest amount of force. Use one hand at first. This will generally be sufficient. In exceptional cases it will not; and then you will require more force and may use both hands.

As soon as the head reaches the pelvic floor you have to consider the danger of injury to that structure and the perineum.

You know in connection with normal labor that when the thighs are flexed on the body a tightening of the skin around the vulva may be noticed. You should then direct your

patient to extend the legs and thighs in order to slacken the tension around the vulva. This tightening is still more apt to occur when the thighs are fastened in the flexed position with some form of leg-holder. It is extremely important therefore to observe the following rule :

As soon as the head commences to press on the pelvic floor remove the leg-holder and allow extension of the thighs, *i.e.*, allow the legs and thighs to hang over the edge of the bed or over the end of the operating table towards the floor. In an ordinary bed the patient's feet may rest on the floor while the nurse keeps the thighs separated by holding the knees outwards.

While Milne Murray generally employs traction during the pains, he refers to one group of cases where a different plan should be adopted. It sometimes happens, especially in elderly primipare, that every uterine contraction when the head is low is accompanied by spasmodic action of the muscles of the pelvic floor which narrows or tightens the vulvar orifice and causes rigidity of the pelvic floor and perineum. In such a case deepen the anesthesia and employ traction only during the intervals between the pains.

As I have before intimated, I think, in the majority of cases in the high and middle operations, your blades will generally grasp the head obliquely.

As soon as the position of the blades shows that rotation of the head has commenced, remove the blades, reintroduce and readjust them. Otherwise do not remove the forceps until after complete delivery of the head.

During the delivery of the head, even while it is passing over the perineum, continue to pull on the crossbar without regard to the application handles.

Many, if not most, obstetrical authorities in the United States only use the traction rods in high and mid operations, some only use them in the high operations.

Some authorities, both in Great Britain and the United States, relax the fixation screw during the interval between making traction.

Chloroform. Operative interference adds a new element to labor. You know that chloroform may be administered in two different ways: 1. To the obstetrical degree. 2. To the surgical degree. The obstetrical degree being generally sufficient in normal labor, the surgical degree being generally necessary for operative procedures. We may consider that the latter rule applies to forceps delivery, although not for the same reasons which prevail in the operations.

The application of the blades of the forceps and traction during uterine contractions causes little or no extra pain. We

want profound anesthesia, not especially to prevent pain, but to keep the patient quiet during our manipulation. The violent movements of semi-intoxication may cause serious injuries. You should therefore do one of two things:

1. Administer no anesthetic.
2. Get an assistant to completely anesthetize the patient.

Surgeons generally observe a good rule in making the administration of anesthetic the work of one man who shall assume full responsibility therewith. Obstetricians would do well to adopt the same rule, which is really the only safe one. Many practitioners allow the nurse to give the anesthetic. Although they direct the nurse and watch the patient as carefully as possible, such practice involves a certain amount of risk which occasionally may be considerable.

REPORT OF A CASE OF INJURY TO THE SPINAL CORD, CAUSED BY A FRACTURE DISLOCATION IN THE CERVICAL REGION.

The Anterior Horn of Grey Matter and the Pyramidal Tracts were Implicated at the Seat of Injury, whilst the Sensory Paths Largely Escaped Damage.

By A. PRIMROSE, M.B., C.M., Edin., M.R.C.S., Eng.

Professor of Anatomy and Associate Professor of Clinical Surgery in the University of Toronto, Surgeon to the Hospital for Sick Children, etc.

A complete transverse lesion of the spinal cord, the result of traumatism is of common occurrence, but we do not often encounter cases where the injury has produced conditions which are analogous to hemisection, such as may be experimentally performed on animals. Whilst the usual experiment on animals is that of lateral hemisection, the case which I now place on record exhibits symptoms such as one would predict if one were to cut the cord half way through the substance from the anterior towards the posterior surface.

The lesion in this patient was obviously produced by an injury to the cord, the maximum degree of which was located between the origin of the sixth and seventh cervical nerves from the cells in the anterior horn of grey matter.

The following history of the case was taken on November 23rd, 1903:

J. N., aged 14, met with an accident on July 19th, 1902, *i.e.*, sixteen months ago. He was standing under a shed when it fell, and the roof of the shed pinned him down, with his neck acutely flexed forward. When he was released, a few minutes after the accident, he was found sitting on the ground, with his head bent forward on his chest, this attitude having been assumed apparently because of the weight of the roof of the shed, which rested upon his head. He was stunned for a few minutes, but soon recovered consciousness. The moment he regained consciousness he found that he had lost the power of the right leg and of both arms; the power of the left leg was impaired also, but he could use it a little, and he was able to stand upon it. He, however, had no sensation in either the arms or the legs, they were absolutely numb. Twenty minutes after the accident he was carried into the house, and by the time he arrived there sensation began to return everywhere, except in the right arm. At first the sensation was like "pins and needles," but it soon became normal. The sensation in the right arm returned about 48 hours after the accident. He made his first attempt to walk two or three days after the accident, and succeeded in doing so, but in a very stiff manner,

taking very short steps and progressing with difficulty. About the same time he first succeeded in moving the arms. After the accident there appeared to be some swelling of the neck, and any attempt to move the neck caused pain. The organic reflexes were not affected, the bladder and rectum being under full voluntary control.

Six days after the accident he was brought home to Toronto from the country where the accident happened. He was kept in bed for two weeks. It was considered that he had a dislocation of the right shoulder, and his arm was kept in a sling. It appeared subsequently, however, that no actual dislocation existed. Five weeks after the accident it was noted that he could walk, though with difficulty: he was able to make his way slowly along the street for 200 yards or more, whilst doing so he always supported his chin on his clenched fist so as to take the weight off his neck. He was able to use the left arm well and the right arm fairly well: thus he could write with the right hand. Shortly after this he began to grow gradually worse, and he slowly lost power of both arms and legs. Operation was advised by his medical attendant. Eight weeks after the accident he was admitted to the hospital, where he remained four weeks, and during that time he got gradually worse until he was not able to stand at all, and his arms became completely paralyzed. Sensation was, however, not affected. After he left the hospital operation was again urged, on the supposition that there was a dislocation in the cervical spine, with pressure on the spinal cord. The operation was carried out on the 16th October, 1902, at the boy's house. Immediately before the operation he was able to get about a little, but he was not able to stand upright. He would slide downstairs and could crawl up again, helping himself mainly, in pulling himself up or down, by using the left arm in which he still retained a good deal of power. The mother stated that the operation was performed to remove a piece of bone in order that the neck should be straightened. It was not stated whether this piece of bone pressed upon the spinal cord or not. The neck was put in plaster of paris to keep it rigid. Immediately after the operation he was unable to move either arms or legs, nor had he any sensation. There was complete motor and sensory paralysis. Sensation returned in twenty-four hours, and after two weeks, when the plaster was removed, a certain amount of motor power returned also. The power of movement, however, gradually disappeared again until, two months after the operation, he was quite unable to move either arms or legs, with the exception of a slight amount of movement of the left arm. The reflex mechanism governing the bladder and rectum was never affected, moreover he was able to empty the bladder and rectum voluntarily, in a

normal fashion. He had an attack of cystitis two months after the operation, from which he soon recovered.

His condition has not changed much for twelve months. If anything there has been a slight improvement for the last two months; a little more power exists in the left hand and he has some power of movement of the right fingers. He has never at any time had any convulsions or vomiting.

Present condition: The boy appears to be well-nourished, save that there is marked wasting of the upper extremities

FIG. 1

Showing wasting of the muscles of the upper extremity, flattening of the chest and prominence of the abdomen.

(Fig. 1, 2, 3). The trunk and lower extremities exhibit no wasting, and on palpation the muscles appear to have retained their tone everywhere, save in the upper extremities, where they are very flabby to the feel. The extent of the atrophy of the muscles of the upper extremity is noticeable in the hand, forearm and arm, and includes the muscles about the shoulders.

The amount of paralysis of the upper extremity may be noted as follows: The latissimus dorsi is very much atrophied, and appeared to be wholly inactive. He can raise the shoulders (trapezius and levator anguli scapulæ.) He can draw the shoulders forcibly backwards (rhomboids and trapezius), these

muscles have escaped. He can bring the shoulders forwards but very feebly (pectorals and serratus magnus.) He can produce a very feeble contraction of the deltoid; it is with great effort that he can raise the arm at all, and the amount of movement is very limited. Flexion at the elbow is carried out in a feeble manner, and the biceps is mainly brought into action for this purpose; one could not make out any action of the brachialis anticus. The triceps acts very feebly, so feebly that he is barely able to extend the forearm when it is necessary to raise the weight of the forearm and hand in the effort

FIG. 2

Showing wasting of the muscles of the upper extremity, more particularly of the hand and forearm; also the contrast of the upper with the lower limbs; in the latter is no wasting.

to do so. There appears to be complete paralysis of the supinator longus, and of the extensor group of muscles of the forearm. Thus there is complete drop wrist. The flexor group of muscles appears to be involved to the same degree, except the slight amount of movement of the fingers to be described immediately. He can pronate and supinate the forearm. This action is apparently carried out by the contraction of the

supinator biceps and the pronator radii teres. The movements so far described are, as far as one could determine, precisely similar in degree on the two sides of the body. There is some variation, however, in the movements of the digits, which can be carried out as follows: He can flex the 4th and 5th digits of the right hand very slightly. This movement is, in reality, carried out in the most feeble manner. In the same manner he

Fig. 3

Showing wasting of the Latissimus Dorsi muscle.

can flex all the digits of the left hand. The only extensor power that one could definitely observe in the digits is an extension of the left thumb. The flexion power of the digits of the left hand is distinctly greater than that of the right hand, but even here it is very feeble: he is quite unable, for example, to move the indicator of the dynamometer.

The amount of voluntary movement of the lower extremities

is very, very limited, but he appears to have some voluntary control. Thus, he can slightly waggle the 4th and 5th digits of the right foot. He is unable to make any other movements of the digits of either foot. With a great effort he can draw the limbs up as he lies in bed, bringing about flexion of the thighs on the abdomen to an angle of about 100 degrees of flexion; flexion of the knees occurs at the same time, probably brought about by the weight of the legs when the thighs are flexed. With still greater difficulty he is able to extend the limbs again, but this he is able to accomplish, provided there is not too much resistance offered, for example, by a fold of the bedding. No other movement of the lower extremities of a voluntary type could be observed.

The marked atrophy of the muscles of the upper extremity, as compared with the lower, is remarkable. The bony prominences about the shoulder stand out very markedly. The coracoid processes appear almost on the point of penetrating the skin. The muscles of the arm and forearm are similarly wasted, and in the hand the thenar and hypothenar eminences have mostly disappeared. The digits tend to assume the attitude of the "main en griffe", due to the flexor action with interossei paralysed (Fig. 2).

The intercostals are paralysed; he can expand the chest somewhat, but this is apparently accomplished by bringing into play the sterno-mastoids and the scalene muscles. The breathing is diaphragmatic in type, and in quiet respiration the anterior wall of the chest recedes slightly as the diaphragm descends in inspiration. One could not discover any activity of the muscles of the abdominal wall.

Sensation.—There is little or no impairment of sensation observed anywhere. The sensations of touch are everywhere appreciated. Testing him with the æsthesiometer it was found that he had lost, to some extent, the possibility of making the finer distinctions which may be considered normal, but possibly this condition is due to disuse. For example, he cannot distinguish two points touching the palm of either hand until they are separated $2\frac{1}{2}$ cm. The same distance is necessary on the flexor aspect of the index finger and the back of the hand. On the anterior aspect of the chest 3 cm., anterior aspect of abdomen 6 cm., front of leg 4 cm. He can appreciate the distinction between heat and cold.

Reflexes.—One is unable to elicit reflexes in the upper extremity. In the lower extremity the knee jerks and ankle clonus are greatly exaggerated. The superficial reflex usually elicited by tickling the sole is not present. The cremesteric reflexes were absent. Babinski's reflex is present. The organic reflexes (bladder and rectum) are normal and are under voluntary control. The bladder at the time of examination

was empty, the percussion note being resonant above the pubes. Priapism is almost constantly present. The pupils are equal and normal in their reaction.

Electrical Reactions: The wasted muscles of the upper extremity either wholly failed to respond to the Faradic current or responded feebly and irregularly, whilst to the same current the muscles of the abdominal wall and of the lower limbs were thrown into contraction.

An X-ray photograph, taken from before backwards, showed a slight curvature of the cervical spine with convexity towards the left. There was an irregular prominence of the lateral portion of the lower cervical vertebrae, such as would have been caused by a lateral displacement of bone in this locality.

Diagnosis:—There has evidently been implication of the grey matter of the spinal cord in the region of the brachial enlargement. At the same level the motor conducting paths of the spinal cord have been damaged. The sensory conducting paths and the posterior horns of grey matter have escaped injury. The evidence pointing to implication of the cells of the anterior horn of grey matter exists, 1st, in the extreme atrophy of the muscles of the upper extremity; 2nd, in the absence of reflexes in the upper extremity.

The evidence pointing to implication of the motor conducting paths of the cords at this level exists, in the paralysis of the muscles which exists below this level in the trunk and lower extremity; whilst the absence of atrophy of the muscles of the trunk and lower extremities, indicates that the anterior horn of grey matter below the level of the injury is not damaged; these deductions are further warranted by the fact that he has greatly exaggerated deep reflexes in the lower extremities (knee jerk and ankle clonus.)

The evidence indicating the escape of the sensory fibres from injury is obvious from the fact that sensation is unimpaired in all parts of the body.

In studying the individual groups of muscles, wholly or partially paralysed in the upper extremity, one is able to locate the level of the injury to the cervical portion of the spinal cord, between the points of origin of the 6th and 7th cervical nerves from the anterior horn of grey matter. For example, the rhomboids and levator anguli scapulæ (5th C.) have escaped. Other muscles, whose nerves arise partly above and partly below the level of injury indicated, are only partially paralysed (*e.g.*, the pectoralis major). Some muscles arising wholly below that level are completely paralysed (*e.g.* the digital extensors).

It is probable that whilst the maximum amount of injury is located at the level of the 6th and 7th cervical nerves, there may be some damage done to the grey matter of the brachial enlargement in its lower portion.

FORCIBLE DILATATION OF THE OS UTERI.*

By KENNEDY C. McILWRAITH, M.B., Tor., F.O.S., Edin.,
Associate in Obstetrics, University of Toronto.

Mr. President, Ladies and Gentlemen,—It is always a difficult matter to know when one ought to interfere in an obstetrical case, and I venture to hope that the discussion of this question for a short time this evening may prove profitable. The circumstances which call for interference of this particular kind are various, and the methods numerous; so that we have two main points to consider, viz.: When and how to dilate.

For the purpose of methodical description I shall refer to three classes of labor in which dilatation may be practised with advantage.

1. In those labors which do not differ greatly from the normal except in the matter of time limit, or where an abnormal presentation is associated with slow dilatation; or where the waters escape before dilatation is accomplished, or where the liquor amnii is scanty from the start, giving rise to "dry labor."

In all these conditions the patient's constitution and uterus may be perfectly normal.

2. When dilatation is not so much a matter of choice as of necessity.

In these cases the patient or her uterus, or both, are generally in a distinctly pathological condition, and the consequences of either action or inaction are much more momentous.

3. In cases of abortion, or premature labor.

As an instance of the first class let me cite the history of a labor which I attended last Saturday. I was called at 3 p.m. to attend a young woman of 23 in her first confinement. I was not able to get to her until 7 p.m., when I found her having strong labor pains. The os was far back and admitted only the tip of one finger. The liquor amnii was present in normal quantity. Membranes intact. I returned again at 10 p.m. and found the condition unaltered. By 2 a.m. the condition of affairs was very little changed—this after nine hours of fairly hard labor. The position was L.O.A. I anæsthetized her and with my fingers dilated the os to the size of a silver dollar. By 4 a.m. she had made no further progress, in spite of strong labor. I then gave her a hypodermic injection of half a grain of morphia. She had a good sleep of three or four hours, from which she awoke much refreshed, and the pains began again. By 10 o'clock the os had become softer, though dilatation had not advanced. She had now been nineteen hours in labor. I called in another physician who anæsthetized her completely, and

*Read before the Toronto Medical Society.

under the anæsthetic I dilated the os to the full extent, and delivered with the forceps without much difficulty. She made an uninterrupted recovery. This woman would probably have delivered herself in time, but she was certainly saved a good deal of pain, and probably had a more satisfactory puerperium than she would have had if the case had been left to nature. This condition is very different from "dry labor," for the child is not subjected to pressure, nor does retraction of the uterus take place.

The frequency with which abnormal presentations are associated with slow dilatation or with early escape of the waters is a matter of common observation. Posterior positions of the occiput, face and breech presentations, are all cases in point, and in all of them artificial dilatation is of the greatest service.

For this purpose various forms of hydrostatic dilators have been proposed—Barnes' bags, Champetier de Ribes' bag and Voorhees' bags being the ones most in use. With regard to these I may say that all rubber appliances are hard to keep, and are therefore very apt to be out of order when needed; they are difficult to sterilize; they displace the presenting part; they sometimes cause excruciating pain; and if traction be made upon them they are apt lacerate the cervix. Gradual dilatation with the fingers in the manner advocated by Harris is much to be preferred.

In my second division, in cases in which dilatation is, so to speak, forced upon us, the question is much more serious. In eclamptic women for example, whose nervous systems are already upset by the toxin, we must be prepared to occasionally see grave results follow the operation. Profound shock and occasionally mania have developed in some of my cases. How far these symptoms are due to the disease, and how far to the operation, it is difficult to say, but I think forcible dilatation helps to bring these conditions about.

In cases of accidental hæmorrhage, whether concealed or not, extreme caution must be used. We have here to deal with a diseased uterus, in which severe laceration of the cervix or rupture of the uterus is liable to occur, even with the most careful manipulation.

For these cases branched metal dilators have been advocated, especially where rapid delivery is decided upon in cases of eclampsia, the most recent one being Bossi's. Many reports, both favorable and adverse, have appeared recently about this instrument. There is no doubt that it is a powerful instrument; but in my opinion it is a dangerous one, and of very limited application. Deep cervical incisions are recommended by some, particularly by Dührssen, but this does not seem a method suitable for general use. In nearly all instances dilata-

tion can be accomplished with the fingers, by Harris's method. Commencing laceration can always be appreciated by the skilled fingers, and the operation stopped before damage is done.

Lastly, in cases of premature labor, say from the fourth to the eighth month, dilatation is often slow. In labor at term the condition known as polarity of the uterus exists; that is, that as the detrusor fibres contract the sphincter fibres relax, and dilatation progresses. In these premature labors, however, the sphincter does not seem to relax in the same way. This difficulty may frequently be overcome by the local application of cocaine to the os. A small flat wad of sterilized absorbent cotton, soaked in a sterilized five per cent. solution of cocaine, is introduced soaked within the os. I have seen a rigid os, which had resisted the uterine efforts for nearly twenty-four hours, dilate in half an hour after this application. Manual dilatation under chloroform is also suitable for these cases.

In cases of inevitable or incomplete abortion which are afebrile, dilatation is often promoted, and at the same time hæmorrhage checked, by packing the cervical canal and vagina with iodoform gauze. In carrying out this measure the vulva and vagina are washed with green soap and hot water, and then douched with a solution of lysol (one per cent.). The cervix is then drawn down with tenaculum forceps, a posterior speculum inserted, and the cervix gently packed with iodoform gauze. The anterior fornix, the posterior fornix, and the two lateral fornices, and finally the upper part of the vagina, are then packed with the same material. The outer part of the vagina may then be packed with balls of absorbent cotton, wrung out of lysol.

If sepsis have set in, it is better to dilate at once, and empty the uterus. This may often be done with the fingers, but sometimes requires metal dilators. Of these, the graduated cones of Hegar or Kelly are better than the branched dilators, such as Goodell's: they are less likely to cause laceration. The cones should be grooved, in order that they may not act like piston rods and force fluid through the fallopian tubes.

In conclusion, I wish to lay especial emphasis on the importance of early interference in cases of "dry labor." In them the local damage to the maternal tissues, and the subsequent constitutional disturbance, is apt to be very severe, while the pressure on the child but too often causes its death. When the waters escape prematurely, and strong uterine contractions continue, aid should be given if dilatation is not complete in three or four hours.

Abstract of Notable Lecture.

CANCER AND ITS ORIGIN.

(Abstract of the Bradshaw lecture, delivered by Henry Morris, M.A., F.R.C.S.Eng., at the Royal College of Surgeons, England, on December 9th, 1903. Sarcoma is included under the heading as well as Carcinoma),

By F. W. MARLOW, F.R.C.S. Eng., Toronto.

The theories of the causation of malignant tumor formation embrace two varieties of causes, namely, the entogenous and the ectogenous. Under the head of entogenous causes Thierch advanced his "lost balance" theory, whereby it was supposed that a loss of balance between the epithelial and the connective tissues occurred, thus allowing of an overgrowth of one or the other of these tissues. This theory gained but little support, for it seemed that carcinomatosis or sarcomatosis ought always to be general instead of being localized at first, as is usually the case. On the other hand, the "tumor germ" theory, advanced by Cohnheim and Durante, has received much support, and up till the present time has occupied the foremost position amongst all theories, and still continues to do so.

Amongst ectogenous causes are injury, chronic irritation and chronic inflammation, all of which are admitted to have an influence in the development of malignant disease, but which undoubtedly cannot act alone. Micro-organisms are also included under this heading, and the parasitic theory of the causation of malignant disease has received a great deal of attention of late; but, in spite of the fact that it is still supported by many careful observers, it seems to be on the wane. Many varieties of the schizomycetes have been discovered in this connection, but such bacteria must play a very subordinate *rôle*, if any, and are generally regarded as factitious products of faulty technique. Different protozoa or psorosperms have been found in the form of coccidia-like bodies, but it is claimed that, instead of being psorosperms, they are products of cell degeneration or cell inclusions of leucocytes or red blood corpuscles, or the result of irregular forms of indirect division of epithelial cells. Likewise many observers have discovered organisms of the blastomycetic or fungus variety, but it is claimed by others that these are either forms of cell degeneration or changes in the nuclei of leucocytes, or in red blood corpuscles, or in the endothelial cells of lymphatics, or products of degeneration of protoplasm, or atypical mitosis and phagocytosis, or of contamination by yeasts or torulae in the air of the laboratory. The conclusion, as regards the "micro-

organismal" theory, is put forth as follows: "In short, neither fission fungus, yeast fungus, nor psorosperm—neither bacterium, blastomycete, nor protozoon—has, up to the present moment, been satisfactorily shown, in spite of years of patient study by many skilled workers, to be in any sort of causal relationship to these diseases."

In advancing the "tumor germ" theory, Cohnheim attributed the occurrence of tumor formation to the proliferation of embryonic cells and not of mature ones. A matrix of such embryonic cells is supposed to be cut off during foetal life from its proper connections, and to remain undeveloped as an "embryonic inclusion" or a so-called "tumor germ," surrounded by developing and ultimately fully developed tissues. Such "tumor germs" may remain quiescent throughout life, or may be excited into activity by one or other of several causes, at an indefinite period after birth. While accepting Cohnheim's theory, Durante claimed that such "tumor germs" might have a post-natal origin as well, by arising in tissues which have again acquired embryonic anatomical characters through weakening of their chemical or physiological activity. Senn says "a tumor is a localized increase of tissue, the product of tissue proliferation of embryonic cells of congenital or post-natal origin, produced independently of microbic cause." The existence of congenital matrices of embryonic cells is evidenced by the many vestigial structures and foetal rests found in various places throughout the body, as the tongue, gums, face, scalp, neck, brain, eye, testicle, ovary, broad ligament and along the line of coalescence of the trunk. Likewise, evidence is not wanting to show that post-natal matrices of embryonic cells may be developed; for in the cicatrization of wounds or ulcers while the process of epidermization is going on, epithelial buds may become shut off from their normal anatomical relations and be deprived of their normal function. This sequestration of unused cells may occur after burns, chronic ulcers, lupoid and syphilitic sores, fissures, sinuses, fistulæ, compound fractures, cracked lips, excoriations from soot, tar or paraffin, laceration and ulceration of the cervix uteri, and the alternate breaking down and healing, in such diseases as ichthyosis of the tongue, cheek, vulva and vagina, or ulcers caused by carious teeth, as well as after wounds whether operative or produced otherwise. In a similar manner in parts which have been the seat of chronic inflammation or in scars, unspecialized connective tissue cells may be sequestrated and form a sarcomatous "tumor germ."

That such matrices, whether of congenital or post-natal origin, may continue for a time in a dormant state and then suddenly start into active growth under the influence of some

stimulus, is in accordance with what occurs in the growth and development of the teeth, the bones, the skin and its appendages, the larynx, the mamma, and the organs of generation, the cells of which remain for years in a state of incomplete differentiation, and then normally, under the physiological stimulus, occurring at puberty, take on rapid proliferation. Pathologically, the same suddenly aroused activity is seen in certain epithelial tumors which are rarely observed before puberty, such as dermoids, branchial cysts and mammary adenomata. For a matrix of embryonic cells to be transformed into a tumor, it must be aroused into activity by some stimulus, either general or local, congenital or acquired, and the chief amongst the alleged common causes of such stimuli are heredity, age, traumatism and chronic irritation and inflammation.

The part taken by heredity is the production of an aptitude or predisposition to the development of malignant disease, by bringing about a diminution of the physiological resistance of the tissues which permits of their being invaded and destroyed by the proliferating cells of the tumor matrix. During childhood and early adult life, when sarcoma is of more frequent occurrence than carcinoma, it would appear that exciting stimuli are more likely to start into activity a connective tissue "tumor germ," whilst in mature life and advanced age, when epithelial activity is greater than that of connective tissue, epithelial "tumor germs" are more likely to give rise to tumor formation. More than one variety of "tumor germ" may exist in the same individual, and if middle life has been reached, without the incidence of a matrix arousing stimulus, and such occurs subsequently, if the stimulus is of general origin, it is probable that the epithelial "tumor germ" will respond and not the connective tissue one, thus giving rise to a carcinoma, but if the stimulus is of local origin, the nature of the tumor will depend on whether the "tumor germ" acted upon is epithelial, giving rise to a carcinoma, or of the nature of a connective tissue "tumor germ," in which case a sarcoma will be the result. As age advances and senility ensues, there is a diminution of physiological resistance owing to impaired vitality of ti-sue and lessened power to withstand the effects of injury.

Traumatism cannot alone give rise to malignant disease. The presence of a matrix of embryonic tissue, either of congenital or post-natal origin, is essential, and when such is present, traumatism or irritation of any kind, whether mechanical, chemical, thermal or possibly microbic, may excite such tumor formation by arousing the matrix into activity and by diminishing the physiological resistance of the tissue. Chronic irritation and inflammation act similarly, and in addition, may provide

a post-natal matrix and so originate the essential factor in the production of malignant disease.

The "tumor germ" theory seems to accord with most of the facts already known with regard to tumor formation, whether of a benign or malignant character.

A large variety of benign tumors undoubtedly arise from congenital matrices, and that they may also arise from post-natal matrices, is evidenced by the occurrence of implantation dermoids and other varieties of cysts, as the outcome of some surface epithelium, hair follicles, or portion of skin being forced into the deeper tissues by punctured and other wounds. In the case of malignant tumor formation it is well known that such is very frequent along the lines of junction of skin and mucous membrane, as in the case of the lip and anus, and in zones of transitional epithelium, as in the case of the cervix uteri, and of the rectum at the junction of the proctodeum with the hind gut, and likewise in situations where active cell proliferation is occurring as in the region of the ends of long bones. In such regions, as well as in many others which might be mentioned in the same category, the anatomical structure varies most, and the likelihood of the existence of congenital "tumor germs" is obvious, and on account of the great liability to pathological changes in these regions, it is not unlikely that post-natal "tumor germs" may be developed as well.

It is a well-established fact that many benign tumors may take on malignancy. In accordance with the "tumor germ" theory this may be due to the inclusion and sequestration of a matrix of tissue derived from the organ or part affected, or in the process of growth of the benign tumor, some of the daughter cells may fail to attain the degree of differentiation of the parent cells, and may subsequently develop, on their own account, into a malignant neoplasm. With regard to the recurrence of malignant disease, after operation for its removal, it would appear that the necessary "tumor germ" is supplied by a cell or cells which have migrated to a lymphatic vessel or gland before the removal of the tumor, or by the infection, by such a cell or cells, of the wound during the operation. Such "tumor germs" resemble the original embryonic matrix of the primary tumor, in being subject to the same kind of restraint and in responding to the same kind of stimuli.

Thus, the "tumor germ" theory of Cohnheim and Durante is regarded by Mr. Morris as being the only theory which has ever been advanced which will accord with the known facts relative to malignant disease. In concluding, he applies to this theory the following borrowed quotation: "It has searchlight luminosity. Like radium it keeps burning brilliantly without consuming itself."

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, H. J. HAMILTON, C. J. COPP AND F. A. CLARKSON.

The Present-Day Treatment of Typhoid Fever.

In time of spring, with its usual outbreak of enteric or typhoid fever, there occurs in *The Practitioner*, of England, a series of papers, by eminent writers, on the different aspects of this disease. The three of these articles devoted to the care of the malady represent the ideas from prominent centres in England, Ireland and America, and, excepting the fact that their authors pay no tribute to the "eliminative treatment," contain a wealth of information on the modern treatment of the disease.

The general management of a case of typhoid fever (called more frequently enteric fever since the late war, during which this name was officially adopted), all three writers agree that the essentials are simplicity, with constant watchfulness—"armed expectancy." Great emphasis is given to the amount of daily attention necessary on the part of both physicians and nurses. The former must watch the expression of the patient; the position he takes in bed; the presence of tremors or twitching of limbs, tongue, or lips; the motion of his face and hands; the state of his pulse, respirations, temperature, and the appearance of his tongue. Moreover, Sir William Broadbent, who writes the introductory paper of the series, maintains that the attending physician *should see every passage.* The nurses have the care of the mouth, food and cleanliness; the protection of the skin; the giving of enemata; the bathing; the recording of temperature, pulse and sleep; and ample work is usually afforded for two good nurses. Thus the care of a case of this kind is a task of much labor. For this reason typhoid fever should be, wherever possible, a hospital-treated disease.

Otherwise the surroundings of the patient must receive every consideration, both for his own sake and for the sake of the community. The Irish contributor, Sir John W. Moore, urges strongly the dangers of leaving a patient in a situation where there is the suspicion of leaky drains, or of the water supply having been the original cause, and cites an illustration, showing clearly the improvement arising from the removal of a case from such a tainted atmosphere, where daily further doses of the poison were being taken in. It is pointed out that the con-

tagion is possible *by contact* to a much greater extent than was maintained heretofore. Disinfection of motions should be carried out by means of leaving them in contact with the fourth of their volume of carbolic acid for some hours. Bichloride of mercury is held by one writer to be ineffectual. The frequent presence of large numbers of typhoid bacilli in the urine has of late been noted, and the administration in such cases of urotropine three times a week is advised as a routine.

The care of the mouth must be constant. A very good routine is to use a mouth wash containing carbolic acid, glycerine, listerine, and boracic acid after each feeding.

In the use of drugs for general treatment Sir John W. Moore is the most active. He is a believer in *turpentine* as being an all round remedy. He claims that it is an excellent diffusible stimulant, a valuable antiseptic, that it relieves chest complications, controls diarrhea, checks meteorism, and stays hemorrhage. He gives it in capsules in small doses. He cautions against giving it in the presence of kidney complications.

In regard to the use of intestinal-antiseptics none of the writers have faith in their power to affect "the sheltered typhoid bacillus."

For checking the swarms of other bacilli normally found in the intestinal canal, however, there is more favor shown them. Here, again, the Irish physician is the most active. He has a strong appreciality for *salicyate of quinine*, given throughout the disease (5 grains per dose). He maintains that it prevents constipation, fetor, and tympanites. The English authorities, Dr. Herbert P. Hawkins, physicial for St. Thomas' Hospital, and Sir Wm. Broadbent believe that there may be much use in them when there is present secondary fermentation, the former using carbolic acid (3 min.), and holding as dangerous anything which increases peristalsis, such as the perchloride, or calomel. Sir William prefers one or other of these two latter. The Johns Hopkins' Hospital uses none of them.

In regard to alchohol, its use as a matter of routine is condemned by all. It may be used to the amount of 2 oz. or 3 oz. daily at the height of the disease, and in greater quantities with failing heart, but many patients go through the attack without it.

Diet.—On this most important part of the routine Dr. Hawkins sets forth as the two essentials to be considered, the impairment of carbohydrate and proteid digestion, the possibility of one or more of the ulcers having a floor of little more than peritoneum. Three forms of nourishment find favor, *milk*, *whey* and *albumen water*. Milk is given the first place. It is to be diluted by the use of one-fourth to one-half its bulk of soda-water, barley-water or lime-water; it may be flavored

with coffee or tea, or made into a jelly by adding an ounce of isinglass to the pint with one-half pint of cream and some lemon flavoring. It may be made into a soup flavored with vegetable. It may be peptonized. By the tactful use of these means and by having recourse to the two other nourishments, no trouble may be experienced in the matter of the patient revolting. Indications calling for the cutting down or withholding of the milk are the presence of curds, diarrhoea, or much distention. Whey comes next in order and indeed is held to be so efficient as a sole means of sustenance, that many physicians are abandoning milk entirely in its favor. Albumen water, made by mixing the whites of two eggs with a pint of water, adding a pinch of salt, some lemon juice, and if desired some brandy, is the third staple.

Stress is laid on the small amount necessary. Too little is held to be much safer than too much. If milk is to he used two pints is considered sufficient. The feeding should be small and frequent. The routine in the Johns Hopkins Hospital corresponds with the ideas of Dr. Hawkins, and is as follows: Four ounces of milk with two ounces of lime water every four hours; four ounces of albumen water half way between milk feedings; whey, if necessary, to replace milk. A free supply of drink apart from the nourishment is strongly urged, and in Baltimore the patient is urged to consume at least three litres of water a day. Constant care is given to the enforcement of this detail. Dr. MacCrae mentions two rules as being worthy mottoes for the walls of a typhoid ward: "More water," "Too little food, rather than too much."

Pyrexia.—In this department of therapy the same amount of unanimity as in matters of diet is not found on the part of the authorities. Sir John Moore leans to the idea that a certain amount of fever indicates a beneficial reaction of the organism which is necessary to bring about a cure. The limits of this benefit are reached when tissue consumption is causing exhaustion, or when the heart muscle is beginning to fatigue. He quotes a classical authority to the effect that "The diseases which drugs do not cure, fever cures." Dr. Hawkins says rigidly that two, three or four weeks at a temperature of 103 degrees is "a definite tendency to death, which can be greatly diminished." He thinks that a lower average daily temperature is of great assistance in helping tissue resistance to bacterial activity, Both agree on the dangers of using antipyretic drugs for any continued length of time, and place full confidence in hydrotherapy. As to the methods of putting this into practice Sir John Moore rather favors tepid sponging, but finds that a reduction in the body temperature (taken in the mouth) of 1.5 to 2 degrees may be obtained. Dr. Hawkins

places on a par the cold sponge and the bath. He points out that sponging is often more grateful to the patient, can be more readily performed, especially outside of an hospital, and can be done in spite of complications which contra-indicate the bath. The bath, however, has some possible advantage in the effect of the sudden immersion on the cutaneous, and secondarily on the cardiac and respiratory systems.

The method of sponging consists in having the patient lie on a blanket covered by another blanket. Commencing at the face the whole body is gone over with water at tap temperature for ten minutes, each part being returned at once to cover. The prominent bony parts are thoroughly dried and powdered and the patient is wrapped in the under blanket. If a drop of 3 or 4 degrees is not produced a second sponging with ice water is instituted for another ten minutes. By this interval the effect of too much result may be prevented, a point of importance in the case of children.

In the Johns Hopkins Hospital the bath treatment holds absolute sway. It is begun early and continued throughout the attack. The results are a diminution in nervous symptoms due to toxemia, such as delirium, tremors, stupor: the very rare development of "the typhoid state;" a distinct improvement after each treatment in the pulse which becomes smaller and harder; the benefit from three or four deep full breaths which lessen the chance of passive congestion; a lessened liability to bed sores; a reduction in temperature, and finally the saving of about seven patients per 100. The baths are given every three hours, when the temperature is 102.5 degrees or over, for fifteen minutes. The temperature of the water is from 70 to 85 degrees. *No ice is used.* While in the bath the patient is rubbed continually. Blueness or cyanosis during or immediately after the bath, with some shivering, are not found to be unfavorable signs. The contra-indications to baths are severe abdominal pain, hemorrhage, phlebitis and prostration. Late arrivals in grave condition are not bathed. It should be mentioned that while at the Johns Hopkins Hospital patients are lowered into the bath in a sheet. On the continent, if they have been admitted at the first of the attack, they are allowed to step into the bath.

Bowels.—Two of the writers, the English and American, prefer a condition of constipation, "Lock up the bowels, and keep them so." The Irishman, however, thinks constipation decidedly undesirable and finds it more difficult than diarrhea to manage. He administers calomel (1 to 3 grains) followed by an enemata, at any time up to the eighth day, after which he depends upan castor oil, as being less exciting of peristalsis. This is given in repeated small doses daily till the bowels act

regularly. Dr. Hawkins points out that while purgatives clear the small intestine, which enemata do not, yet it is not certain whether this is really desirable, for if natural purgation, in the shape of diarrhea occurs, every effort is made through the teachings of experience to check it. Hence, alike with Dr. MacCrae, he is satisfied with a simple enema every second or third day, and no purgative is given throughout the whole attack.

Diarrhea is regarded by all as undesirable. It hurries food along the intestines, causing danger of premature separation of the sloughs. It is, therefore, made the subject of treatment. The diet is cut down, and if necessary milk is stopped. The Johns Hopkins Hospital treatment is to avoid opium and rely on bismuth. If necessary, however, a lead and opium pill, with an enemata of laudanum and starch is administered. Sir John Moore uses half ounce doses of chalk mixture with ten minimums of tr. chloro. co, while Dr. Hawkins relies entirely on opium, as Dover's powder with bismuth, or in severe cases in the form of morphine hypodermically.

Meteorism is to be treated at once. A glycerine compress to the abdomen, the passage of a long rectal tube which is left in place for half an hour, the administration of turpentine or carbolic acid by the mouth, are the different ways in which this grave symptom is met.

Sleep.—This must be secured if necessary by a late sponging, by a Dover's powder, or if a high fever be present by morphine, strychnine and digitalin hypodermic.

Hemorrhage.—The appearance of blood in the motions is a signal in the opinion of all three writers for exercise of the greatest immediate care. It is recognized that a few streaks may be significant of nothing more than the separation of sloughs, but no chances should be taken. Though there is every reason for fearing hemorrhage at all times, yet Sir John Moore has found that sometimes a decided improvement follows a single copious bleeding. Repeated smaller ones nearly always end in death. At the danger signal, then *absolute rest* to the bowels and the body, as a whole, should at once be enforced. All food should be withheld for some hours, to be resumed gradually in the form of small quantities of whey or albumen water. The bed-pan should not be used, a pack of tow being arranged for the reception of evacuations. A light ice poultice should be applied to the right abdomen. The great remedy is opium. A hypodermic injection of morphine is the best form for its administration. The object to be obtained is the arresting of peristalsis during the two or three days of danger.

The following prescription was a stand-by of a celebrated physician :—

Ac. tannic	gr. 10
Tr. opii	m. 10
Spts. terebinth	m. 15
Mucil	drs. 2
Tr. chlorof	m. 20
Aq. menth, pip. ad	1

Calcium Chloride—Should be adopted in profuse or continuous cases. It is given in 20 gr. doses every few hours. In Baltimore, its use as a prophylatic measure is being tested. The blood coagulation time of the patient is taken on admission and if it be longer than normal, calcium chloride is given thrice daily. The administration of stimulants and saline injections is to be held for occasions on which great blanchings and collapse is present. The dangers of raising blood pressure are too great to allow of their routine use.

Perforation.—Immediate perforation following early diagnosis is the one hopeful treatment. Emphasis is laid on the necessity for having any distinct change in the abdomen at once reported, and the advisability of operating under conditions of anxious doubt is encouraged.

Dr. MacCrae says "the important point is not to feel called upon to diagnose the condition exactly, but to be able to recognize an acute abdominal condition which demands exploration. The operation should be done under cocaine anaesthesia, and under this, little injurious effect to the patient need arise. The procedure is that for perforation with peritonitis under any condition. Haste must be the constant thought.

Convalescence.—Great conservatism is observed by the writers during this period. It is pointed out that many physicians have had one good lesson to make them inexorable, ever after.

During the week following a drop in temperature, the ever increasing appetite of the patient should be met with such additions to the dietary as jellies, bread and milk, etc. It should be ten days before a little scraped beef be added to the list, and after this a gradual increase daily is the most satisfactory method. Sitting up in bed on the tenth day, getting up in a chair on the fourteenth day, is a fair course in regard to the end of an attack of typhoid fevor.

H. S. Hutchison.

Gastric Hyperacidity.

Russel, of Edinburgh (*British Medical Journal*), believes that hydrochloric acid excess is a much more common cause of dyspepsia, and ultimately of gastric dilatation, than is at

present recognized. He would place about 25 per cent. of his cases of dyspepsia in the category of hyperchlorhydria. The history is often so characteristic that a diagnosis can be made from that alone:—Quite well in the morning, and first sign of discomfort sometime in the forenoon; pain passes off in an hour or two, to reappear an hour or longer after dinner, and food relieves the pain. There is usually a superficial epigastric tenderness. In severe cases, besides the flatulent distension, acid eructations and constipation, common to most sufferers, there is a sense of physical and mental exhaustion, with "paroxysmal pyrosis," which is probably a pyloric phenomenon.

The cause of the disease lies in the undue retention of the food in the stomach after proteid digestion. The starch granules and milk fat, both of which Russel has often found in the contents, continue to stimulate the glands, while the pylorus refuses to allow the chyme to pass on to the duodenum.

The treatment is chiefly dietetic. The proteids ought to be reduced to a physiological minimum, easy of digestion, the starches should be as much altered as possible, and the quantity of food should not exceed the physiological requirements.

SURGERY.

IN CHARGE OF EDMUND E. KING, GEORGE A. BINGHAM, C. B. SHUTTLEWORTH AND F. W. MARLOW.

Resection of Intestine.

At a meeting of the London Clinical Society Mr. F. C. Wallis described an interesting case of chronic intussusception of the enteric variety which was treated by resection. The length of bowel removed was forty-two inches. As time was a great object he performed the anastomosis by means of a Murphy button. Recovery was uninterrupted until the end of the third week when attacks of colic intervened. The Roentgen rays revealed the presence of the Murphy button near the iles-caecal valve. It was removed by a second incision, and complete recovery followed.

In this case a Murphy button was employed in order that the operation should be as little prolonged as possible, and one must admit that in such cases the button is an admirable appliance on account of the rapidity with which the anastomosis can be effected by its use, but in all cases where the condition of the patient will warrant a slight prolongation of the operation one would advise that the introduction of such a foreign body as a Murphy button into the continuity of the alimentary canal be avoided and other means of effecting anastomosis be employed.

In resecting small intestine one wishes to preserve its lumen as far as possible, and if a sufficiently large Murphy button be employed it is not unlikely that when the button is set free it will become impacted in the lower part of the small intestine, where a gradual narrowing occurs in the direction of the ileo-coecal valve. Such was the event that necessitated a second incision in the case reported by Mr. Wallis.

Of other mechanical appliances for effecting intestinal anastomosis, Mr. A. W. Mayo Robson's decalcified bone bobbin is quite deserving of attention. By its use the introduction of the sutures is facilitated, and it acts as an internal splint to the united ends and protects the line of union from the passing faeces, whereas, after a few days, it becomes quite softened and pulpy.

But of all the means at one's disposal one is inclined to regard and to advocate the employment of simple suturing as the most effective and reliable, and to reserve the use of such appliances as the Murphy button for the exceptional cases where rapid completion of the operation is essential and necessitates such a choice. If simply suturing is carefully and intelligently carried out it can hardly fail to effect the desired result.

As regards the method of bringing the divided ends together when simple suturing is employed, the method of end-to-end anastomosis is desirable in all cases where the lumen is approximately the same in both ends, but in cases where the lumen varies from that of small intestine to that of colon it will in most cases be found better to close the divided ends and to perform a lateral anastomosis.

It is interesting to note that in Mr. Wallis' case some forty-two inches of small intestine were removed. In this connection one might speak of the mistaken notion of the value of economy entertained by many surgeons when called upon to resect a portion of intestine in such cases, for instance, as a strangulated enterocele. The tendency has been to remove only the strangulated loop with a few inches, perhaps four to six, above and below the loop. One grants that four to six inches may be enough to remove below the strangulated loop, but in the majority of such cases the prognosis will be improved by the removal of a larger portion above, and such treatment is strongly advocated by no less an authority than Mr. Arthur E. Barker of University College Hospital, London. The rationale of such treatment is obvious, for in any case where strangulation has existed long enough to necessitate resection, the portion of bowel for some distance above the loop may have been so affected by distension and the non-passage of the intestinal contents, and its vitality may be so lowered that if it is allowed to remain it is not unreasonable to anticipate that in that portion of bowel

an enteritis will ensue, which may be of so severe a nature as to give rise to a toxaemia which will bring about a fatal result apart from the interference with union which would be induced. Experiments have shown that a portion of bowel up to one-third of its whole length may be removed without interference with nutrition, and the writer has had the privilege of observing a case of Mr. Barker's in which over six feet of bowel were successfully removed in the treatment of a strangulated enterocele in a woman considerably past middle age.

A point worthy of most careful attention in all cases of resection of intestine is the method of treating the mesentery, and here again one would advocate a departure from a method so frequently adopted, in which a triangular piece of the mesentery is removed, for no matter how carefully this is done the arrangement of the arterial loops in the mesentery is such that the circulation in the divided ends of the bowel may be easily interrupted. It is quite unnecessary to remove any mesentery at all in such cases, even where a large portion of bowel is resected, and the method that appeals to us as being the best and safest is the one in which after selecting the portion of bowel to be removed, a series of interlocking ligatures are placed in the mesentery parallel to the bowel, and only far enough distant from it to allow of the subsequent division of the mesentery between the ligatures and the bowel. When this method is employed there can be no hemorrhage when the mesentery is divided and the division is effected so close to the bowel that there is practically no danger of interrupting the circulation in the divided ends; when these are brought together it will be found that the mesentery will have shrunk to so great an extent that its presence will not materially increase the difficulty of effecting the desired anastomosis. F. W. M.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, K. C. McILWRAITH, FRED. FENTON AND HELEN MacMURCHY.

Local Edemas.

M. Budin, Dr. Lop, and other members of the Obstetrical Society of Paris, have recently been investigating the subject of edema, occurring locally in patients who are pregnant, or passing through the puerperium. The back of the hand, the palpebral region, and the lobule of the ear, were the localities chiefly affected. A subicteric tint of the skin, dyspnea, albuminuria, indicanuria, and a marked degree of hypoazoturiæ

were among the accompanying symptoms. The treatment consisted of rest, a milk diet, and saline purgatives; and was successful in both the cases reported. The cause is thought to be neurovascular disorder, produced by introduction of the toxins of puerperal infection into the renal circulation.

Combined Use of Finsen Light and X-Ray in the Treatment of Uterine Carcinoma.

G. G. Hopkins believes that in the combined use of the Finsen light and the x-ray, the principal dependence being the Finsen light, he has devised a very satisfactory method for the cure of uterine carcinoma, especially when that disease originates in the cervix. Great caution must be observed in the use of the x-ray, particularly in recurrent cases in which hysterectomy has been done. He has found that an hour's exposure to the Finsen light, and five to eight minutes exposure to the x-ray, is a good proportion in which to employ the two agents. He describes very carefully an apparatus for carrying the tubes, so constructed that the patient need not be placed in a constrained position during treatment. None of the many substitutes for the Finsen light has given as good results as the original apparatus.—*Brooklyn Medical Journal.*

Sterility.

The senior obstetric physician of Guy's Hospital, Dr. Peter Horrocks, publishes in *The Lancet* of January 9, 1904, a lecture delivered by him before the Medical Graduates' College.

The lecture is an extremely valuable one, and concludes with a careful outline of treatment, from which we take the following points:—

1. *No treatment* if the woman is healthy and has not been married three years. The chance of pregnancy is still good.

2. *Food and Exercise.*—Spare diet; plenty of work or exercise; change of diet.

3. *Tonics.*—Use these freely to improve the general health.

4. *Change of Environment and Climate.*—Send to a warm climate—*e.g.*, Cornwall, Devon, Malta, Italy, etc. Send back to her old home, etc.

5. *Specifics.*—In case of doubt give mercury or potassium iodide.

6. *Local Treatment.*—Cure any excoriation, pruritus, etc. Remove caruncles, repair lacerations. Cure vaginitis, urethritis, endocervicitis, etc.

7. *Regulation of Coitus.*—Forbid excess.

8. *Natural Habits.*—Stop douching, etc.

Phlegmasia alba dolens during Pregnancy.

Mrs. R., aged 23, primipara, in the 33rd week of her pregnancy, slipped and fell on the ice, and was quite severely shocked. Shortly after she began to have severe pains in the abdomen. About one and one-half hours after the accident I found that well marked uterine contractions had begun. They continued for several days, in spite of several doses of morphia, but finally quieted down, and we began to hope that the danger of an interruption of pregnancy had passed, when, 10 days after the accident, the left thigh and leg began to swell, and a a typical phlegmasia developed. There was fever for several days, considerable edema, and great pain. The limb was elevated, enveloped in moist dressings, and morphia given, until after three weeks the patient was able to get along with a bandage and cotton dressing. During this time there were many and painful uterine contractions. For a week or more before labor the patient was able to get around on a wheel chair. Confinement occurred at term, 283 days from the beginning of the last menstruation, 270 days from conception, and 151 days from the first appearance of the fetal movements. Labor was quite normal, lasting about 16 hours. For a few hours after the delivery of the child the temperature was 100.3, and the pulse between 85 and 94. On the fifth day temperature was 100.5 for a few hours, and the pulse 100. With these exceptions, there was no fever or other kind of sepsis in the puerperium. The patient began to sit up in her wheel chair on the 18th day. The leg had been only slightly swollen and tender during the whole time. Five weeks after confinement she began to walk a little, and the limb became more painful and swollen. By the use of bandages it was kept in fair condition. Seven examinations of urine were made during pregnancy, and a slight amount of albumin was found once about the middle of the pregnancy, which disappeared the following week. Nothing abnormal was found in the urine after the appearance of the phlegmasia. The patient had never had any trouble with the limb. With the exception of anemia in girlhood she had always been pretty well. The physical examination disclosed no organic heart disease or other disease. A vaginal and rectal examination made after the appearance of the phlegmasia disclosed no intra-pelvic phlegmon. After a hasty glance through the Jahresbericht I was surprised to find so few cases of phlegmasia during pregnancy reported. I have found four. Williams mentions that he has seen one. One case is reported by Brindeau and two by Saint Ange. The latter occurred in the early months of pregnancy, while Brindeau's case was apparently spontaneous, and in the last month of pregnancy. The pathological anatomy and etiology

of phlegmasia is obscure. There is not even agreement as to the question whether the accompanying femoral phlebitis is primary or secondary, although it is generally assumed to be primary or the cause of the cellular edema. Whether the lesion of the vessels is due to infection, mechanical injury, or results from changed condition of the blood is also a question in dispute. My case throws, perhaps, no light upon the subject. The absence of fever and any kind of local infection previous to the appearance of the swelling tends to show that infection was not a factor. On the other hand, we may easily imagine that the long continued uterine contractions following the accident may have dislodged placental masses that formed rudimentary emboli or perhaps altered the blood composition. This seems to me the more probable explanation, and tends to confirm me in the opinion that phlegmasia is not always of septic origin. I had considerable fear that labor would come on while the phlegmasia was in its acute stage. Brindeau's case, as well as my own, seems to show that phlegmasia is not made worse by labor. If the limb were very sore the movements of the patient during labor would probably add to her discomfort. The affection does not seem to complicate the puerperium. No doubt it is wise to delay labor or prevent premature delivery, if possible, but so far as any conclusions can be drawn from two or three cases we may, perhaps, conclude that the danger of labor during phlegmasia is not so great as might be expected.—Bacon, of Chicago, *American Journal of Obstetrics.*

OPHTHALMOLOGY AND OTOLOGY.

UNDER THE CHARGE OF J. T. DUNCAN, M.D., C.M.

The Effect of Potassium Iodide upon the Eyes.

Under this title an interesting article appears in the *Medical Bulletin*, pointing out that this drug may produce photophobia, hyperesthesia of the retina and even retinal hemorrhage.

The writer states that potassium iodide may produce serious eye trouble, and states that Professor Galezowski has expressed himself strongly in opposition to the use of this preparation in ocular syphilis. As iodine causes dilatation of the cerebral blood vessels, with a retardation of the circulation, it is to be inferred that it may prove injurious both to the brain and to the retina, which is so intimately connected with the cerebral cells. This is not merely a matter of inference, but, unfortunately, cases have been witnessed in actual practice.

But the chief interest of the article is in regard to a case of corneal ulceration, occurring in the Clinic of Dr. Valois, of Paris, France. The potassium iodide had been prescribed on account of a disease of the nose and throat, before she went to Dr. Valois' Clinic.

The patient, a woman, had not had syphilis. She first came to the Clinic on July 19, 1899. There was a slight degree of hypermetropia, and proper glasses were ordered. About a year later she returned with a stricture of the lacrymal duct of each side. The canal was catheterized and injected for some time. Another year passed. In 1902 she came to Paris for further treatment, and there, according to her statement, she suffered from corneal ulcer of the right eye, with, later, total necrosis of the cornea and prolapse of the iris.

In Sptember, 1902, she entered the hospital. There was then upon the left cornea a large ulcer, which was very carefully treated by means of douches, atropine, yellow pomade, silver nitrate, and copious injections into the lacrymal passages. Nevertheless, the ulceration extended; the cornea became white and completely infiltrated. The patient could with difficulty perceive light. Fearing the influence of the atrophied right eye an enucleation was performed, but this operation was equally without benefit. The left eye grew worse every day, notwithstanding all the efforts which were made.

It was at this time, upon the occasion of a morning visit, that the patient asked if she should still continue to take the iodide. Only then was it learned that she had, for more than three months, been taking every day a drachm of potassium iodide, which had been prescribed by a physician whom she had consulted on account of an affection of the nose.

The iodide was stopped, and from that moment ensued a rapid improvement. The ulcer cicatrized in a short time. The infiltration of the cornea disappeared and sight returned. At the date of the report there remained a rather large leucoma, which, however, did not prevent vision. The patient was perfectly able to distinguish objects. In this patient the already existing infection of the lacrymal passages had communicated itself to the lacrymal glands; the least gate of entry was then sufficient to produce an abscess of the cornea, against which the physicians were disarmed, for the corneal ulcer was in constant contact with the infected conjunctival secretion. It is not necessary, therefore, to be too exclusive and to impute to the iodide all the disasters which occurred to the eyes. The patient, however, undoubtedly belonged to a a class in which the administration of iodide demands a constant watchfulness, viz.: those afflicted with disease of the lacrymal ducts. He compares them to those in whom the

absorption of mercury provokes serious stomatitis: the condition of their mouth and teeth predisposes them to this sort of accident. In the same manner the state of the nasal and ocular mucous membranes, of such people as this patient, renders them peculiarly susceptible to corneal complications developing under the influence of the potassium iodide.

Dr. Javal's Book

(Reviewed in *The Ophthalmoscope*) is a very remarkable one in view of all the circumstances of its publication. Dr. Javal, a leading French ophthalmologist, became totally blind from glaucoma when he was over sixty years of age. In this condition he set himself to find a book containing directions helpful to those who had lost their sight in adult life. Not finding one, he, blind though he was, produced this book, "Advice to Those who have just Lost Their Sight,' *'Entre Aveugles.*" It is a book indispensable for every blind person of mature years. It treats of almost every possible aspect of life and is full of hints that cannot fail to render existence as happy and independent as possible under the circumstances. Domestic and professional occupations, hygiene, health, food, watches and clocks, walking, tandem tricycles, travelling, reading, writing, correspondence, music, amusements, tobacco, marriage and the sixth sense (the so-called "sense of obstacles") all have chapters to themselves. An appendix deals with the various means of facilitating reading, and gives a list of addresses useful to those who require the various things used by the blind, such as special watches and clocks, wax tablets, styles, paper, cards, tricycles, games, and so forth. The publishers are Masson & Co., Paris, and it is to be hoped that an English translation may soon appear.

The Life Study of Patients.

In *American Medicine* is a most suggestive article by Dr. G. M. Gould on "The Life Study of Patients." The article is based upon the discoveries made by the author in regard to the effects of eye strain—discoveries made while studying the lives of certain great men.

If one glances through the biographies of any twenty-five great literary workers he will find a strange and striking difference between the personal lives of perhaps half of the number and the others. Twelve or fifteen will be found to be comparatively healthy, while the others are constantly afflicted with much suffering. In some cases their physical diseases will result in the profoundest tragedies. Thus Gladstone, Goethe, Taine, Kant, Mommsen, Gibbon, Zola, Verdi, Agassiz, Fiske,

Longfellow, Lowell, Hawthorne, etc., leading sedentary and scholarly lives, possess good health, while we find that other men of the same callings and application to literature or science, endure lives of intense suffering. Of this class are George Eliot, Huxley, De Quincey, the Carlyles, Parkman, Browning, Wagner, Spencer, Whittier, Margaret Fuller, Lewes, Darwin, Nietzsche, etc. Take the fourteen last mentioned: If one physician could have treated all of them during their entire lives he would undoubtedly have seen that there was some single underlying unity and cause for all their afflictions. But as the single complaint was treated at one time by one, or even several physicians, and as a hundred were consulted during their lives, all the cases remained discrete, mysterious and utterly inexplainable.

The fact of the extreme diversity of the symptoms of the fourteen patients, of itself prevented their physicians from recognizing the single cause to which they were due. The nearest they came to it was a half-glimpsed, vague and passing adumbration of the truth. It was in part a sort of flattery of the patient, usually by himself originally, that begot the theory that brain working caused suffering. The hundreds of columns of twaddle about "brain-fag" in the London and American newspapers in October, November and December, of 1903, show the existence of the same superstition. A thousand brain workers have "brain-fag," but another thousand do not. It is plain that the explanation is badly in need of explanation. Intellectual work does not produce disease or suffering any more than muscle work.

"Migraine" and "brain-fag" are caused by astigmatism, but eyestrain causes many other morbid symptoms than those grouped under the non-signifying and misleading terms. In no text-book on diseases of the stomach or of the digestive organs will one ever find a word as to eyestrain, and yet eyestrain possibly causes more of the diseases of digestion than all other cases combined. The study of the patient's single disease, or the disease of itself, would never have revealed this truth. Only the life-histories of the suffering patients make the fact apparent.

After enumerating several other pathological conditions resulting from eyestrain, the article concludes: The continuance of all migrainous or eyestrain diseases indeed emphasizes the great need I have previously urged of a systematic and periodic re-examination by scientific specialists, of the bodily organs and functions throughout life. Apart from the objective scientific value of such tests, they would often reveal, and thus prevent further ingravescence of pathologic conditions and trends, of profound value to individuals and families.

Tobacco Nerve Deafness.

"Tobacco Nerve Deafness" is the subject of an article by Wyatt Wengrave in the *Annals of Otology, Rhin. and Laryngology.* Deafness due to tobacco smoking may be classified in three groups, (1.) Mechanical, (2.) Irritative, (3.) Toxic, or Nerve Deafness.

Toxic or Nerve Deafness.—This is due to the gradual accumulation of certain toxins of tobacco in the system. Whatever the actual poison may be, whether picrotoxin, nicotine, or any other, it is, as a rule, found in largest amount in the darkest, strongest and cheapest tobaccos, *e.g.*, cut plug, cut cavendish, shag, etc., also in cigars of the Maduro strength, Oriental as well as Occidental. This poison is undoubtedly cumulative, since complete abstinence is essential in effecting any permanent improvement; mere reduction in the quantity consumed, or of its strength, generally proves unsatisfactory.

The effect of tobacco toxin upon the cardio-vascular system is familiar to all of us, also its influence upon the gastro-intestinal tract, which may be responsible for the production of further toxins.

But its most striking effect is upon the nervous system, as exemplified in "tobacco amblyopia," a disease characterized by degeneration of certain bundles of the optic nerve, known as the papillo-macular fibres, constituting scotoma, a condition associated with the loss of appreciation of the visual red waves.

Does the auditory nerve present a similar degeneration? Although at present we have no definite histological evidence, the fact that there was a marked deficiency in the appreciation of low tones in fifty per cent. of the cases recorded is presumptive evidence in favor of their being some selective degeneration at work in the auditory as in the optic nerve.

After giving particulars of seventeen cases of deafness, the author concludes:—

1. That they were all well marked cases of nerve deafness (unattributable to other causes), occurring in heavy smokers.

2. That the loss of low tones in fifty per cent. suggest an auditory equivalent for a recognized ocular lesion.

3. That the disease was symmetrical.

4. That there was impairment of color sense in eight of them, and definite scotoma in four cases.

5. That eighty per cent. showed marked improvement on abstinence from tobacco, supplemented by drug treatment: three were cured. But the habit was so strong and the will so weak in the rest of them that the forecast and the results were not encouraging.

Editorials.

CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

We desire again to call the attention of our readers to this association. It is said by some of its members, who have studied the matter carefully, that if a comparatively large sum were raised through greatly increased membership that it is likely the annual assessment (which even now is only $2.50) would be materially reduced. The profession should not forget that the simple existence of such an association with sufficient money at its disposal would prevent the majority of unjust and vexatious suits for mal-practice, especially those of the black mail type, from passing beyond the initial stage. It is, of course, admitted that the public should be protected, as far as possible, from negligence and carelessness on the part of medical practitioners, and, on that account, the association will not defend suits where such faults exist. We are glad to announce that there has been a substantial increase of the Toronto membership, largely through the efforts of Dr. George A. Peters, who, though a personal canvass, has brought in thirty-four new members up to the present time. Dr. Peters will be glad to receive the names of other physicians in or out of Toronto who desire to join. We should like to repeat the suggestion already made that the various local medical societies throughout the Dominion take the matter up and assist in increasing the membership.

DOCTOR JAMESON.

Dr. Jameson, of South Africa, is chiefly known to the world on account of his famous raid which proved in all respects a disastrous failure. His small band was surrounded by an overwhelming body of Boers and captured. The leaders were sentenced to death, but later were surrendered to the British Government. After a trial, Jameson was sentenced to fifteen months' imprisonment. After serving about half this time in Holloway Jail he was released on account of ill health,

and soon returned to South Africa where he served through the war. After the surrender of the Boers he was elected a member of the Legislature of Cape Colony of South Africa. He was soon a leading spirit of that body and became the leader of the "Progressive" or Anglo-Saxon party, or "Utlanders" in opposition to the old "Boer" or "Dutch" party. Sir Gordon Sprigg, the leader of the Government, has been defeated and Dr. Jameson is now Premier.

In considering the extraordinary career of this remarkable man we are apt to forget the fact that for many years he had a large practice as a physician and surgeon. Dr. Starr Jameson was born in Edinburgh 51 years ago. He studied medicine in the University of Edinburgh with distinguished success, winning scholarships and a gold medal. After graduating he went out to South Africa and practised in Kimberley, where he soon made an income of about $25,000 from his professional work. Among his distinguished patients were President Kruger, of the Transvaal; President Brand, of Orange Free State; Lobengula, the famous Metabele Chief: and last, but not least, his friend Cecil Rhodes.

ONTARIO MEDICAL ASSOCIATION.

In our last issue we gave a list of the various committees which have been appointed for the next meeting of this association. The meeting will be held in Toronto, June 14th 15th and 16th, under the Presidency of Dr. F. W. Ross, of Toronto. We are told by the Secretary that the committees have already done a considerable amount of work and we shall soon be able to speak more definitely as to the progress made. The Committee on Papers and Businesss, under the chairmanship of Dr. Albert Macdonald, are getting the programme well under way. The chairman makes the pleasing announcement that there is great enthusiasm in different parts of the Province, and that extra efforts are being put forth to make the meeting of 1904 a memorable one. The corresponding members of the various parts of Ontario have done much excellent work and promise a sufficiency of papers. We all want as many papers as possible from members outside Toronto; but we have

noticed in the past that many outsiders, especially recent graduates, wish the profession of Toronto to do a fair share in connection with the reading and discussion of papers.

VENEREAL PROPHYLAXIS.

Since the dawn of civilization, legislators have had to wrestle with the question of prostitution, and seemingly the solution is not yet. Maria Theresa in Vienna, and some of the Popes in Rome, learned by experience that stern regulations did not accomplish what they intended, in fact, till the law was changed, venereal diseases steadily increased. Lately the city of Bonn, by legislation somewhat similar to the Contagious Diseases Act in India, has conclusively proved that compulsory medical examination does nothing towards lessening prostitution. Paris, too, with a century of experience, finds that controlled prostitutes and brothels are slowly diminishing, while clandestine harlots are rapidly increasing.

Although anything like official recognition of prostitution is most abhorrent to the Anglo-Saxon races, as a whole, the city of Cincinnati has during the past three years been under a *régime* of prostitution-control by the Board of Health. Dr. M. L. Heidingsfeld (*Journal Amer. Med. Asso.*) has taken the statistics of his own practice to prove that since these regulations have been enforced, syphilis and gonorrhea have increased very much, and concludes that the control at present exerted in that city is not able to prevent a material increase in the number of venereal cases.

The reasons for this failure are not hard to find. The sense of false security which is given by a medical bill of health lures many a man, whose better judgment would otherwise cause him to abstain. In Cincinnati this diploma must, by law, be "exhibited conspicuously in the room occupied by the person to whom it is issued." Apart altogether from the farce of issuing a certificate, which can seldom be accurate—for who will say from one examination that a woman has *not* gonorrhœa?—a great many of these testimonials are bogus. Heidingsfeld found too, that a number of his patients contracted disease from masseuses, manicure artists, etc., who were regularly inspected

and licensed to practice prostitution, which they advertised in the daily papers under the cloak of deception.

The regulations are enforced by police officers who are often tyrannical, and it is needless to say that the chances for blackmail are greatly increased, only, in this case, it is the man who has the advantage. Retention in a ward of a hospital is irksome to girls of this class, indeed to the *demi-monde* most odious, so that the women seek to deceive the examining physicians, where formerly they were anxious to explain their ailments, that their cure would be the more speedy.

Another undesirable result of this system has been the scattering of the prostitutes to all parts of the city, where once they occupied only certain districts. As one writer said of New York, when similar regulations were tried: "Once prostitutes lived only in the Tenderloin; now they are our neighbors."

The inevitable conclusion of these experiments, is that the suppression of prostitution is at present impossible, and its control impracticable by medical supervision.

NOTES.

The Mayor of Chicago Arrested.

At the instance of the Coroner's Jury, empanelled to enquire into the cause of death of the victims at the Iroquois theatre fire, Carter H. Harrison and seven other persons, including the Fire Marshal, the Building Commissioner and the Building Inspector, as well as the theatre authorities, were arrested. The verdict ran, "We hold Carter H. Harrison, Mayor of the city of Chicago, responsible, for he has shown a lamentable lack of force in his efforts to escape responsibility."

Cigarette Smoking.

The opinion is gaining ground that the inhalation of cigarette smoke, containing carbon monoxid and other poisonous gases, is the real source of the evil effects of cigarette smoking. In the British Parliament recently cigarette smoking was mentioned as one cause of the deterioration of physique in British soldiers. Public opinion requires to be roused in Canada regarding this evil of cigarette smoking.

The Johns Hopkins Hospital.

Letters from Baltimore inform us that indirect losses in the great fire of Baltimore are likely to reduce the income of the Johns Hopkins Hospital. We hope this fear is unfounded. The income of the Johns Hopkins Hospital was all too small for its great work. The energy and courage of the citizens of Baltimore, displayed in the face of such a calamity, are beyond all praise.

Births and Deaths in 1902.

The report of the Registrar-General for Ontario for the year 1902 has just reached us. It is gratifying to note that the birth rate for 1902 is higher than in 1901 or 1900, but still our birth rate is lower than that of France, which now stands at 22.2. The figures for Ontario are, per 1000: Birth rate for Ontario in 1900, 19.8; 1901, 21.1; 1902, 21.7. The annual death rate for 1902 is 12.6 per 1000. In 1901 it was 13.6 per 1000.

Obituary.

ELIAS VERNON, M.D.

Dr. Vernon, of Hamilton, died February 7th, aged 76. He was born in Newmarket and received his degree of M.D. from Jefferson College, Philadelphia, in 1851. He practised in Hamilton forty-four years. He was for many years a member of the Ontario Medical Council.

DUNCAN FRAZER, M.D., M.R.C.S., Eng.

Dr. Frazer, of Lakefield, Ont., died January 21st, aged 57. He received his medical education in Trinity Medical College, Toronto, and passed his final examinations in Trinity and Toronto Universities in 1874. After a post-graduate course in London, England, he went to Lakefield, where he practised for many years. He was in poor health for some time from chronic Bright's disease.

Personals.

Dr. Helen MacMurchy has been elected 1st Vice-President of the club organized by the women graduates of Toronto.

Dr. W. T. Hamilton (Tor. '01), of Strathroy, has received the double qualification M.R.C.S. and L.R.C.P. London, England.

Dr. Vrooman, M.P. for South Victoria, after recovering from an appendicectomy in the General Hospital left for home February, 10th.

Dr. Jas. F. W. Ross is returning from Egypt and is now going from Italy to England. He will sail from Liverpool for New York, April 1st.

Dr. Peter H. Bryce, the newly appointed Inspector of Immigration of the Interior, went to Ottawa immediately after the meeting of the Provincial Board of Health, February 2nd and 3rd.

Drs. George McDonagh and J. Milton Cotton, of Toronto, went to New York, February 14th, and sailed for Nassau, February 22nd. They expect to return to Toronto about March 27th.

We have in our Canadian Senate probably the oldest legislator in the world. Senator David Wark completed the hundredth year of his age, February 19th, and is still able to discharge his duties.

Dr. J. Orlando Orr, Manager of the Toronto Industrial Exhibition, returned from England, February 9th. The celebrated band of the "Black Watch" which he has secured for the next exhibition is the band of the First Battalion of the 42nd Highlanders, now stationed in Edinburgh.

Dr. Claude W. Freeman has been appointed Medical Superintendent of the Hamilton City Hospital. After the resignation of Dr. McLaren, Dr. Freeman acted as House Surgeon in full charge of the hospital, and his management was so satisfactory that the trustees have promoted him to the position of Superintendent with a salary of $1200 a year, the appointment to date from January 1st.

Dr. Edward E. Kitchen, of St. George, chairman of the Provincial Board of Health, entertained a number of his friends at a banquet in the King Edward Hotel, Toronto, February 3rd. Among those present were the members of the Board, Hon. J. R. Stratton, and certain members of Parliament, the Dean and some members of the Medical Faculty of the University of Toronto. A very pleasant evening was spent, and many kind things were said concerning the outgoing and incoming secretaries of the Board, Drs. Bryce and Hodgetts.

Correspondence.

LODGE PRACTICE AND INSURANCE EXAMINATIONS.

To the Editor of the CANADIAN PRACTITIONER AND REVIEW.

Dear Sir,—From time to time some writer lifts up his hands in horror at the extent of contract-practice in Ontario. There is scarcely a physician in this province who has not been, or is not now, employed by some society to do its "doctoring" at so much per head per year. Even in a village, where there is only one practitioner, this same condition obtains. What the physician can gain in that case is hard to see, for none of the arguments usually advanced in extenuation of this custom are applicable to him. In our larger cities we find men, who are looked upon as leaders of their profession, and who hold chairs in some of the medical schools, attending patients who are members of a lodge, at $1 per year, including medicine. When this matter is up for discussion, the sin is usually laid at the doors of the young men—those who have recently entered the profession, and who, in their eagerness to keep body and soul together, are willing to take anything that will pass as money. But what can be expected, when the men who have taught them medicine and ethics are deeply dyed themselves.

The fees for medical examination for these societies are so inadequate, that physicians are almost ashamed to say they have charged anything. One society has a form containing 150 questions, which must be answered by the medical examiner, with a urinary analysis thrown in, for which it pays the magnificent sum of $1.00! Sometimes the examiner goes to the home of the candidate. Talk about bargain days!

And what is the result? The physician examines, in a superficial and perfunctory way, often failing to detect slight traces of albumen, or soft murmurs of the heart, because, hurry as he may, the examination will take nearly an hour. It is a very common thing for a man, rejected by a careful examiner in one company, to go over to another, and be accepted for even $5000 —accepted, too, when he was a bad risk.

Surely, such a state of affairs is most humiliating to the medical profession. Even the dentists can give us a better example than that. The societies offer these picayune fees, because they know that if one doctor refuses ten others will climb over one another to get the appointment. Is it because medical men place money before honor and virtue? It was

never so in the past. No other body of men has such a reputation for unselfish, altruistic devotion to duty. The profession is becoming more crowded, and the income less, but surely we are not forced yet to snarl over such a miserable pittance as these societies are willing to dole out.

These societies are not benevolent societies, in the strict sense of the word. When a man neglects to pay his dues they drop him just as quickly as a regular insurance company. They were formed for the specific purpose of getting life assurance and medical attendance, at the lowest possible figure, and their intention in both cases is to rob the doctor of his proper fee.

How can the medical profession defend itself? Not by Dominion or even Provincial legislation, certainly, if such were possible. In every district there is a medical society, the officers of which could easily reach every member and every doctor practicing in the district, and ask him to sign a declaration that he would not do any lodge work for less than, say, $5 per year, and would cease to examine candidates for less than, say, $3, provided every other man in the district would do the same. Only by a united profession can we change our position as beggar to that of prince.

If the Dominion Medical Association first, and afterwards the provincial and local associations, would place on record a motion to the effect, that lodge practice, at such beggarly rates, was most unprofessional, it would be only a few years before the whole question would be in a fair way towards settlement.

MEDICO.

Book Reviews.

The International Text-Book of Surgery. In two volumes. By American and British Authors. Edited by J. Collins Warren, M.D., LL.D., F.R.C.S. (Hon.), Professor of Surgery, Harvard Medical School; and A. Pearce Gould, M.S., F.R.C.S., of London, England. Second Edition, thoroughly revised and enlarged. Vol. I. General and Operative Science. Royal octavo of 965 pages, with 461 illustrations, and 9 full-paged colored lithographic plates. Vol. II. Special or Regional Surgery. Royal octavo of 1122 pages, with 499 illustrations, and 8 full-paged colored lithographic plates. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, $5.00, net; sheep or half morocco, $6.00, net.

In planning this work the editors and co-workers have kept constantly in mind the needs of both student and practitioner. The result—a masterly exposition of the art and science of surgery, untrammeled by antiquated traditions. In its realization they have given to medical literature an invaluable text book, embodying a clear but succinct statement of our present knowledge of surgical pathology, symptomatology, and diagnosis, and such a detailed account of treatment as to form a reliable guide to modern practice. In this new edition the entire book has been carefully revised, and special effort has been made to bring the work down to the present day. The chapters on Military and Naval Surgery have been very scrupulously revised and extensively re-written in the light of the knowledge gained during the recent wars. The articles on the effect upon the human body of the various kinds of bullets, and the results of surgery in the field, are based on the latest reports of the surgeons in the field.

The chapter on Diseases of the Lymphatic System has been completely re-written and brought up-to-date; and of special interest is the chapter on the Spleen.

The already numerous and beautiful illustrations have been greatly increased, constituting a valuable feature, especially so the seventeen colored lithographic plates. The work is excellent; we know of none to surpass it. It is clear, concise, and up-to-date.

Diseases of the Pancreas and Their Surgical Treatment By A. W. Mayo Robson, F.R.C.S., Senior Surgeon, Leeds General Infirmary; Emeritus Professor of Surgery, Yorkshire College, Victoria University, England; and B. G. A. Moynihan, M.S. (Lond.), F.R.C.S., Assistant Surgeon, Leeds General Infirmary; Consulting Surgeon to the Skipton and to the Mirfield Memorial Hospitals, England. Handsome octavo volume of 293 pages, illustrated. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, $3.00, net.

The authors have not only given us the benefit of their own work, but have consolidated the recorded observations of others and presented this interesting subject in a pleasing manner.

The chapter dealing with "Experimental work on the

Pancreas," adduces most convincing evidence in support of the contentions of von Mering and Minkowski, that diabetes is the result of changes in cells of the "Islands of Langerhans."

The chapters on Acute and Chronic Pancreatitis are very full, nearly half the work being devoted to these diseases.

Injuries, Calculus. Cysts and New Growths all receive due consideration. The work is one we most heartily welcome as a valuable addition to our knowledge, not only of the Pancreas, but of Internal Medicine in general. F. F.

Clinical Surgery for the Instruction of Practitioners and Students of Surgery. By A. J. Ochsner, B.S., F.R.M.S., M.D., Chicago; Surgeon-in-Chief, Augustana Hospital and St. Mary's Hospital; Professor of Clinical Surgery, Medical Department University of Illinois. In one large royal octavo volume of over six hundred pages with nearly one hundred full-page half-tone reproductions of immediate drawings of actual clinical cases. In cloth binding, $6.00; in half morocco, $7.00. Chicago: The Cleveland Press, Publishers. Toronto: Chandler & Massey, Limited.

This volume on Clinical Surgery is the outcome of are quest made by a large number of visiting surgeons at the clinic of the author. The author is not advising any new operation, nor advocating the use of any instrument of his invention, but is presenting a Clinical surgery pure and simple. The text of the book is exceedingly clear and lucid, it does not embrace the whole gauge of surgery, but deals with the subject from a purely clinical standpoint. That is what the profession requires. It is freely and beautifully illustrated. The illustrations depict the operations step by step, and if anything one may feel that the number of illustrations are somewhat in excess of the immediate requirements, but this fault, if it may be called a fault, is rather to the advantage of the reader than otherwise.

The subjects of which it treats are clearly and graphically described. The first thirty pages are devoted to the care of the patient and his preparation, aseptics, antiseptics and anesthesia, and the operating room. It is here that we would like to see a little more clearness expressed on the subject of cocaine. We think that with the admirable text that precedes, the subject of local anesthesia is altogether too briefly dismissed. We hardly think it embraces the views that surgeons hold to-day. There is plenty of space on the page left vacant that could have been utilized in completing the description of cocaine as a local anesthetic.

We look forward to a large sale of this work, and hope that other authors will in future present their work more from the clinical aspect of disease. The publishers have spared no expense in producing the volume in the best form, the typography and illustrations are as carefully prepared as it is possible.

The Treatment of Tabetic Ataxia, by means of Systematic Exercise. An Exposition of the Principles and Practice of Compensatory Movement Treatment. By Dr. H. S. FRENKEL, Medical Superintendent of the Sanatorium "Freihof," in Heiden, Switzerland. Only authorized English Edition. Translated and Edited by L. FREYBERGER, M.D., (Vienna) Hon. Physician to the St. Pancras and Northern Dispensary, etc. 132 illustrations. London: Rebman, Limited, 129 Shaftesbury Avenue, Cambridge Circus, W.C., 1902. Sole Canadian Representative, Chas. E. Wingate, 186 Adelaide St. W., Toronto.

When Dr. Frenkel first introduced his method of exercise for locomotor ataxia in 1889, he laid no claim to influencing the tabetic process, but only the most prominent symptom, the ataxia. In this disease, the motor tracts are perfectly healthy, as far as we can judge by our present microscopical technic, and the great pathological question has been to explain the ataxia. Frenkel combats both the "centre" theory and the "sensory" theory, and regards the locomotion of the tabetic and the exaggerated excursions of the limbs as dependent not only upon the ataxia but upon the hypotonic condition of the muscles and joints.

The key-stone of Frenkel's system is practice. The apparatus required is very small and the treatment can be given at home.

To anyone having patients suffering from this disease, this book is a great help and may mean a new lease of life and usefulness to the sufferer.

Mechanism of the Paroxysmal Neuroses. By FRANCIS HARE, M.D., Consulting Physician, Brisbane General Hospital; Inspector-General of Hospitals, Queensland, Sydney: W. E. Smith, Bridge St., 1905. 33 pages.

This small pamphlet deals with the subject very fully and is worth careful perusal. We are glad to note that Dr. Hare has quoted extensively from one of our co-workers, Dr. H. McMurchy.

High-Frequency Currents in the Treatment of Some Diseases. By CHISHOLM WILLIAMS, F.R.C.S., Edin. Member of the Royal College of Surgeons, Eng.; Licentiate Royal College of Physicians, Lond.; Licentiate Society of Apothecaries, Lond.; Electro-Therapeutist West London Hospital, W.; Surgeon Out-Patients City Orthopædic Hospital, E.C.; Honorary Secretary British Electro-Therapeutic Society, etc. London: Rebman, Limited, 129 Shaftesbury Avenue, Cambridge Circus, W.C., 1903. Canadian Representative, Charles E. Wingate, 186 Adelaide St. W., Toronto.

We have before us the first work to appear, in the English language, on the Electric High Frequency Currents. These are the currents described by the French investigator T'Arsonval, and bear his name. The English have been rather slow in adopting this line of treatment, but, having begun, it will be thoroughly investigated. The advent of the present volume no doubt will aid in its being more freely taken advantage of. Workers in the X-Ray field can very readily equip themselves with the necessary additional apparatus, and greatly augment their field of usefulness. This volume is describing a new

electrical field, and it is proper that a very full and complete description should be given of the appliances. These descriptive chapters are short, clear and concise, yet not too brief. Then the Physical and Physiological characteristics of the current are described, and, finally, the therapeutical applications. In all new methods of treatment, and this is a new method in England and America, although in France and Germany many years old, the tendency is to look upon them as a panacea for every ill. Dr. Williams is altogether too careful an investigator to let one run off with this idea. He has written the book based on the experience of himself and others, and he warns us against falling into any such error as that of expecting too much, yet encourages the investigator, and only recommends where he has proven the value of the treatment.

We can recommend the little volume to all readers, not only those who are interested in electricity as a means of treatment, but those who should be in a position to advise their patients where to look for proper treatment, if they do not possess the necessary appliances themselves.

The typography, illustrations, paper and binding are in the usual fine style of the Rebman Company.

Aids to Surgery. By Joseph Cunning, M.B., B.S, F.R.C.S., Eng.; Senior Resident Medical Officer Royal Free Hospital. London: Baillière, Tindell & Cox, 1904. Price, $1.25. Canadian Agents, J. A. Carveth & Co., Toronto.

This is a condensation of large text books in Surgery, but especially of those of Rose and Carless, Cheyne and Burghard, and Bland Sutton, and is intended chiefly as a help for students preparing for examinations. Whether such a book be considered good or bad it has certainly become popular with the student body. This little book is certainly one of the best of its kind.

How to Succeed in the Practice of Medicine. By Jos. McDowell Mathews, M.D., LL.D. President of American Medical Association, 1898; Author of "Diseases of the Rectum;" late Professor of Surgery, Kentucky School of Medicine. Louisville: John P. Morton & Company, 1902.

The author, with an experience of thirty-five years in the practice of medicine, speaks especially to the young man just entering the profession and has much sound common sense to offer. With only a public school education himself, as is shown by some predicate-less sentences, a lack of proper paragraphing and a few mistakes in English, the doctor is keenly alive to the need of a high standard of matriculation. The principles which he seeks to teach have evidently been part of his life, and have brought him success in many ways other than financially.

Every practitioner requires some reading, apart from medicine, and it would be hard to find a book which will give more pleasure in spare half hours than this. Although Dr. Matthews

avers that he is getting into the "lean and slippered pantaloon," he has still lots of Kentucky fire in him, and can enjoy a good joke as well as ever. F. A. C.

A Text-Book of Operative Surgery. Covering the Surgical Anatomy and Operative Technic Involved in the Operations of General Surgery. Written for Students and Practitioners. By WARREN STONE BICKHAM, Phar. M., M.D., Assistant Instructor in Operative Surgery, College of Physicians and Surgeons, New York; late Visiting Surgeon to Charity Hospital, New Orleans, etc. Handsome octavo of 984 pages, with 559 illustrations, entirely original. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, $6.00, net; sheep or half morocco, $7.00, net.

This work completely covers the surgical anatomy and operative technic involved in the operations of general surgery. It is constructed on thoroughly new lines, the discussion of the subject being remarkably systematized and arranged in a manner entirely original. A feature of the work to which we would call especial attention is the wealth of magnificent illustrations. There are 559 of them, all entirely original. They depict the progressive steps, in the various operations detailed; with unusual clearness, and at the same time represent the highest artistic excellence. The text is fully abreast of the latest advances in surgery, all the recent improvements along the line of technic being adequately discussed. Another feature distinguishing it from other works on operative surgery, is the treatment of the anatomic side of the subject in connection with the operative technic. The illustration will be found of particular assistance in this connection, the muscles, bones, etc., being clearly indicated, together with the lines of incision.

The American Journal of Nursing, published by the J. B. Lippincott Co. for the Nurses' Associated Alumnæ of the United States, now in its fourth volume, is a magazine of great interest and importance. The Editor-in-chief, Miss Sophia Palmer, late Superintendent of the City Hospital, Rochester, N.Y., is to be congratulated on her able staff of contributors and on the value of the contents of every number. The issue for January, 1904, contains, among other excellent papers, two prize essays on "The Shortcomings of Teachings and Methods of Present Training Schools," and articles on "The Nursing of a Typhoid, Smallpox and Vaccination, etc."

No. 27 of the Magazine of the London School of Medicine for Women, contains a paper by Prof. Phear on "The White Blood Corpuscles in Health and Disease." Other excellent papers are from graduates of the School who are abroad. "A Tent Holiday in Mongolia," "A Sunday with the Lapps" etc. One of the most interesting features of the magazine is an account of the presentations to Mrs. Garrett Anderson, M.D., by past and present students on the occasion of her retirement from the office of Dean.

The Canadian Practitioner and Review.

VOL. XXIX. TORONTO, APRIL, 1904. NO. 4.

Original Communications.

THE TREATMENT OF EPITHELIOMA WITH X-RAY*

By DOUGLASS W. MONTGOMERY, M.D.,
Professor of Diseases of the Skin, University of California.

Sequeira was among the first to treat epithelioma with X-ray. Jonathan Hutchinson, Jr., sent him a patient to be treated with the Finsen light. He used the X-ray instead, securing a cure. Phillip Mills Jones, of this city, was the first in America to use the X-ray therapeutically, having treated and cured a lupus with it in 1899. All my work has been done with coils, and almost all of it with a mechanical interrupter, and the tubes used have been moderately high.

For the protection of the patient, there is used a wooden frame into which are slid large sheets of lead with a circular hole in the centre. The frame is so constructed that it may be placed at different angles and raised and lowered on a standard. It is similar in construction to many devices on the market. Smaller pieces of lead are fitted down over the affected region and pierced so as to expose only the part to be treated. One of the failings of this device is, that it does not permit placing the tube close enough to the patient, as the electrical spark is apt to jump from the terminals of the tube to the frame. My assistant, Mr. Maiewsky, has therefore devised, in its stead, a frame which is very convenient. It is made of copper wire that can be readily bent into any convenient shape and yet is strong enough to bear any lead weight that may be placed upon it. This frame rests on the sofa head on which the patient reclines, and on his shoulders, and as the lead sheets can be bent away from the tube terminals, the spark is not apt to jump. This frame gives a good support to the lead sheets that

*Read before the San Francisco Medical Society, January 12, 1904.

would be very irksome for the patient himself to sustain, were they applied immediately on the face. In almost every case except where the hands are being treated, the steadiest and most convenient position for the patient is the recumbent.

As regards time, almost always ten minutes is given every second day until redness appears. From six to eight, or even fifteen sittings can be reckoned on to do this. It is important to give what is considered enough, then to stop and await the results. Often very little change is observed at the time the treatment is stopped, but in a few days, healing sets in and progresses without further use of the X-ray. Many times it has been found difficult to get any reaction whatever, and the

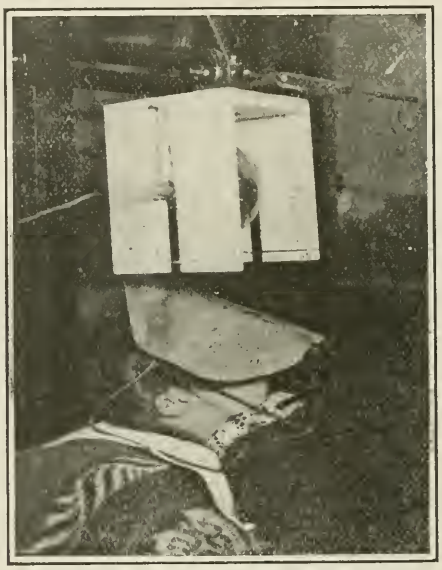


Fig. 1.—Copper wire cage to support the protecting lead sheets.

treatment has been continued day after day without producing any noticeable therapeutic effect whatever, and finally has to be abandoned.

The proximity of the tube to the part treated is considered of as much importance as proximity to a fire if one wishes to get the benefit of its heat. The intensity of the X-ray is probably, as in light, inversely as the square of the distance. In many instances, in my experience, the tube was placed very close to the surface to be treated, even as close as an inch and a half. In this matter I was frequently guided by a piece of information that Malcolm Morris gave me personally: that you

can pour X-rays into an ulcerating surface almost unstintingly without fear of burning. I suppose it acts on the pathological tissue and does the normal tissue no harm. If this is true, and my experience points to its being so, it is a matter of great importance. It enables one to act quickly, vigorously, and with heavy dosage, then to stop and allow healing to take its course. This eliminates long continued X-raying, which, like any other long continued irritation, may even cause a cancer. It is because of the liability of causing a cancer, or exciting to greater growth one present, that I have advised against any further use of the X-ray treatment in cases where the X-ray has been used for a considerable time before consulting me.

Fig. 2.—Epithelioma, seborrhea and senile patches before treatment.

I believe it is still an undetermined question how long a time should elapse before resuming an X-ray treatment in such cases. When one considers the long-continued effects the X-rays are known to have on the tissues, it is possible that this intervening time should be at least several weeks. Of course this would preclude the resumption of X-ray treatment at all in many cases, because, in the meantime, the cancer would have made considerable or fatal progress.

It may be that sometimes the influence of the X-rays on the tissues lasts a very long time indeed. This was brought concretely before me in a case treated in association with Dr.

Howard Morrow. The patient was an elderly woman with an epithelioma of the cutaneous surface of the upper lip that had been troubling her for years, and that, before consulting me, had been hurnt out with some caustic. She got a couple of treatments from me, and as I then left town for my vacation, Dr. Morrow took her in charge. It was understood between us that the tube was to be approached as near the lesion as possible, and it was important to get a good result. The reaction was severe. The treatment was begun in the last week in August, and continued during the first week in September, 1902. On my arrival home early in October, there still was a distinct margin of epitheliomatous infiltration running parallel with the

Fig. 3.—The same patient after treatment by curetting, burning out with chromic acid and arsenical paste, and the use of the X-ray. The X-ray has knocked off the hair above the ear.

vermilion border of the right side of the upper lip, and the mucous membrane, at a "hare-lip-like" notch, the result of a scar from a previous operation, was a much lighter red than on the normal portions of the lip. Nevertheless, the principle was adhered to, that a large dosage of X-ray should be given, and then the treatment entirely stopped, so that no further X-ray was given. The lesion kept on improving steadily for fully a year after stopping the treatment, until now the lip looks as normal as scar tissue can. As before mentioned, this case

seemed to indicate the long-continued influence of this strange therapeutic agent.

In quite a number of cases the X-ray alone is capable of curing epithelioma. This is especially true of superficial epithelioma in the region of the eyes, and on the sides of the nose In regard to the eyelids this is particularly fortunate, as this is a difficult region to operate in, and also one in which it is hard to secure a good plastic result. Then, again, there is another admirable feature of the X-ray, where it is successful. It leaves a small and very smooth scar. In fact, in many instances, the word scar is inappropriate as applied to the almost imperceptible malcule that is left.

The treatment is not always painless, because, if a lively reaction results, the pain may be quite severe, and the bleeding or ichorous discharge may be considerable. But, in a large number of cases, if a milder treatment is adopted, there is no pain whatever. For aged or feeble people who cannot stand hardships this is a decided advantage over the harsher treatments by curetting, excision, or cauterization.

Although at times the X-ray clears up an epithelioma in a remarkably short time, and in an ideal way, both as regards the size and the character of the scar, and the painlessness of the procedure, yet one can never be absolutely sure that it will cure, and, unfortunately, a long time is required to prove this.

In order to bring out clearly this objection, let us imagine a patient coming to the city to be treated for epithelioma. The treatment can be said to last for at least eighteen days, or for nine sittings. At the end of this time very little change may be apparent. One must wait to see if healing will take place, say another ten days. If, at the end of that time, no change is observable, from the point of view of the patient, the treatment has been an expensive failure. Sometimes even around the nose, where ordinarily the X-ray is so successful, it may fail, as in the following instance: A woman, aged 77, was referred to me by Dr. Wickman, of San Rafael, for the treatment of an epithelioma involving the whole tip of the nose. It presented a large, bright red, granulating surface involving the whole nose tip, and invading the right cheek. X-ray treatment was begun October 6th, 1902, and between that time and November 6th, she received about ten treatments, some of which were quite close (two and a half, and one and a half inches). There was very little effect from the X-ray at all, and the patient was suffering a great deal from bleeding and discomfort. I then burned the surface with caustic potash. This acted much better and the sore began to clear off, but it was not doing as well as it was considered it should. On December 18th, 1902, I painted the whole surface with arsenious acid gelanthum paste. A tre-

mendous reaction was secured. There was severe pain, but the lesion, as soon as the reaction subsided, began to get well, and now the affected region is covered by a smooth, supple scar. This epithelioma was of a kind that I have before seen on the nose tip. They frequently spread quite rapidly, and present a bright red, irritable, easily bleeding surface, with very little tendency to deep infiltration or to the formation of nodules.

Now we come to the consideration of the use of the X-ray, not as a sole means of treatment of epithelioma, but as a most useful addition to some other means of treatment. Even in epithelioma of the lip, where so many acknowledged failures with the X-ray are shown, it may be an excellent aid. The X-ray may be used to check the growth or to decrease the size of the tumor, after which an operation of much less extent may be performed than in the first place would have been necessary. What is true of the lip in this respect is decidedly true of epithelioma of the free surface. In fact the X-ray not alone cures or benefits the epithelioma, but it also benefits the diseased skin in which the cancer is situated, and in which the cancer is often only the most prominent and threatening symptom. A patient presents himself, for example, with his face covered with seborrheic and senile patches, some of which have developed into epitheliomata. If the epitheliomata alone are cured, there is still left the disease from which they sprang. The accompanying photographs show this condition of affairs very well, and the X-ray in these cases does a great deal in clearing up this seborrhea, which is disfiguring, disagreeable, and which may be ultimately dangerous to the patient. The X-ray may therefore be used before an operation to decrease the size of the lesion, or it may be used after an operation for the benefit of the surrounding skin, and as an additional guarantee in eradication of the cancer.

The X-ray should be used in those cases where cauterization or curetting, or both have failed, or when an operation is difficult or dangerous. For example, the following is an instance in my practice where an epithelioma had extended deep into the tissues at the internal canthus of the eye, and where the X-ray reached the difficulty in a way nothing else could have done. Arsenic paste had previously been used to burn off the growths on the eyelids and down the side of the nose. Arsenic could not, however, be used down in the corner of the eye, because the tears washed it away. Some of the disease had also been successfully treated with the Finsen light. The Finsen light could not, however, reach down into the corner of the eye, because the nozzle of the instrument was not small enough to be pressed into the narrow space, and pressure is an important factor in Finsen light treatment. It was a dangerous place to

operate unless the whole eye was unucleated at the same time, which the patient objected strongly to being done. The actual cautery was objectionable because of the keloidal scars that sometimes follow its use, and because of the fear of secondary hemmorrhage, which, in such a situation might be difficult to control. After a careful consideration of all the above methods of treatment it was determined to use X-rays, and they were poured down into this corner with an admirable result.

In summing up: The X-ray may be used when pain is particularly to be avoided, as in old, feeble people, or when a good cosmetic effect is particularly desirable. It may be used when the patient is so situated that he can afford a long course of treatment, and when the course of the disease is so slow as to allow one to almost neglect the element of time. It will cure over fifty per cent. of epitheliomas of the face, and will diminish the size of the lesion in a very much greater number. Supposing it to act only in diminishing the size of the lesion, it is still very valuable, as a subsequent slight curetting and cauterization has, in my experience, often finished the cure, leaving a much smaller scar than if the X-ray had not first been employed to initiate the treatment. It probably should be used after every operation for cancer, because no operator can be sure he has carried his line of operation out beyond the diseased area, whereas this remedial agent can be easily administered to a far wider area than any operation can be made to include, thereby acting on diseased foci that would have otherwise entirely escaped.

GASTRO-ENTEROSTOMY, WITH REPORT OF CASES.

By INGERSOLL OLMSTED, M.B. (Tor.), Hamilton, Ont.

During the last few years, the surgery of the stomach has made such rapid strides in advance that the literature of the subject has become very voluminous. It is not in my power, I fear, to add anything of importance to your knowledge of the subject, yet every case operated on should, I believe, be reported. It is by the failures, as well as the successes, that we learn.

It is now ten years since Doyen introduced the operation of gastro-enterostomy for the relief of ulcer of the stomach, and the successes attending this procedure have been of such a universal nature that it is now almost generally adopted by surgeons for the relief of this condition. For old chronic ulcer of the pylorus, it is almost an ideal operation, causing, as it does, a relief of the symptoms and healing of the ulcer.

Since the improvement in the technique of gastro-enterostomy the mortality of this operation has been reduced to a minimum. Robson[1] says in his address on surgery at the last meeting of the British Medical Association: "So recently as 1900, when I gave the Hunterian lectures on the stomach, of the 1,878 cases of gastro-enterostomy that I was able to collect from all sources, the mortality was 36.4 per cent.; but since that time the surgery of the stomach has made such rapid progress that in 103 posterior gastro-enterostomies which I myself performed up to December, 1902, for various diseases, including cancer, there was a mortality of only 3.8 per cent." "Until quite recently gastric ulster, except for one or two of its complications, has been considered to be a subject for medical treatment from first to last. The profession is, however, becoming awakened to the fact that it is not the trifling ailment that it was once considered to be." "Leube, one of the greatest medical authorities, says that one-half or three-fourths of all cases will be cured by four or five weeks of treatment; but if not better in that time, they will never be cured by medical treatment alone." The views here expressed are those generally held by the physicians of to-day, and when one considers that from 90 to 95 per cent. of those obstinate cases can be cured by operation, the argument is a strong one indeed for such treatment. Gastro-enterostomy is the operation to be relied on. It drains the stomach perfectly, relieves the hyperacidity, produces rest of the organ, with the healing of the ulcer.

When one remembers the frequency with which cancer is engrafted on the base of an old ulcer, it seems wise to submit the patient to an operation, with a mortality of from 4 to 10

per cent., which will help very materially in warding off any such dire occurrence. Some advise a pylorectomy for such conditions, yet this requires longer time, and there is certainly greater shock. Mayo, Rodman and Rydygier, however, consider pylorectomy the correct operation. Where cancer is present, the surgeon sees the patient too late, as a rule, to effect a cure by a radical operation, yet the results of Kocher, Krönlein, Mayo, Hartmann, Robson and others are so favorable that we are encouraged to do the radical operation whenever the strength of the patient justifies it. Gluzinski,[2] in speaking of cancer, says: "The palliative operation (gastro-enterostomy) is justifiable only in special cases, where we are unable to relieve the most pressing symptoms due to the pyloric stenosis by the ordinary means, as by lavage, etc." "The radical operation has to contend with the difficulty of making an early diagnosis. He who has observed the career of a patient on whom a palliative operation has been performed for a cancerous pylorus, will be no advocate of this procedure." The opinion of a man of Gluzinski's experience, who has no doubt carefully followed up most of the cases of Hydygier, is indeed well worth considering; but he certainly, in my opinion, goes too far.

Every surgeon will do a radical operation for cancer, where the condition of the patient warrants it; but where the growth is extensive and causing an obstruction of the outlet, with damming back of the gastric contents and dilation of the stomach, he will almost certainly do a gastro-enterostomy. In two of my cases such a condition was present. In both cases the vitality of the patients was so reduced that it seemed inadvisable to give a general anesthetic, and the operation was done under cocaine infiltration. They both were relieved of their symptoms immediately, and the shock was very slight. Robson and Moynihan[3] recommend the operation even in mural cancers, where no narrowing of the outlet exists, as the rest thus produced will lessen the pain and retard the growth of the tumor. But these late cases of cancer are very discouraging to treat by any method, and hence I believe that wherever the subject of gastric trouble is not relieved after a fair trial of the regular treatment, the surgeon should explore and do whatever operation the condition indicates. In preparing the patient for operation, it is advisable to cleanse the teeth and mouth and give sterilized food, as recommended by Harvey Cushing, for two or three days before operation. Lavage is useless in some cases, while in others it is almost indispensable. If the contents of the stomach are foul, it should be washed out twice daily, if possible, for a day or two before the operation. It is well to get the patient accustomed to this little procedure, as Terrier[4] advised, for it is sometimes necessary to do it after the opera

tion, and it is then effected with much greater safety and less discomfort than would otherwise be the case. A purgative is seldom necessary, an enema being in most cases all that is needed. Where there is much emaciation, nutrient enemata, and the hypodermic infiltration of a pint or two of normal saline solution is useful. Barker[5] recommends the addition of 5 per cent. of glucose to the saline.

As to the anesthetic, gas and ether, to me, are the most acceptable. If, however, there is very great loss of vitality of the patient, I would strongly advise the infiltration of a one per cent., or one-tenth of one per cent. solution of cocaine. The two cases on which I operated in this way would scarcely have recovered had a general anesthetic been given. The shock was practically nil, and the pain endured by the patients was very trifling. If general anesthesia be used, it need not be kept all the time, as there is pain only when the abdomen is being opened, and the parietal peritoneum handled. There is a disagreeable sensation when the stomach or mesentery is being dragged in.

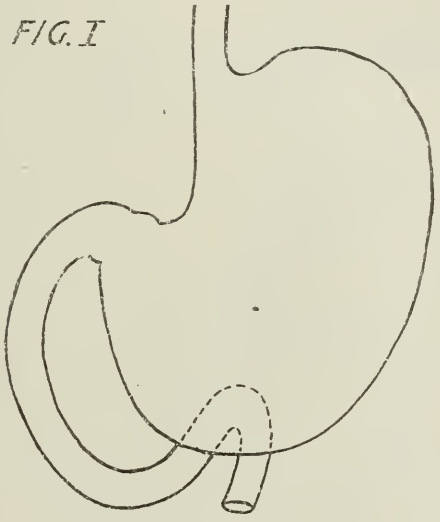
As to the method of operating:—Kocher[6] is perhaps the greatest exponent of the anterior method. He says, "The anterior gastro-enterostomy of Wölfler, with or without modifications, is by far the simplest operative procedure, and it is worthy of note that surgeons like Bergmann and von Mikulicz have gone back to this method." From what Mayo[7] says, it would appear that von Mikulicz now prefers the posterior operation. Kocher recommends making the anastomosis at the most dependent part of the anterior surface of the stomach near the pylorus. A point of the jejunum 40cm. from the duodeno-jejunal fold is taken, the bowel is placed on the lower part of the anterior surface of the stomach at right angles to its long axis, and the anastomosis made with sutures. His results have certainly been excellent. Scloffer[8] reports 23 cases operated on in Wölfler's clinic by his method with one death. In each case the jejunum was taken one-half metre from its origin and anastomosed to the most dependent part of the anterior surface. The opening between the two organs was 5cm. (2 inches) long.

The posterior operation of von Hacker, however, is the one most popular to-day. It is recommended by Czerny, Hans Kerr, Terrier, Hartmann, Robson, Moynihan, Barker, Dalziel, Rodman and many others, and was the one done in three of my cases. The usual methods for making the anastomosis are:—(1) Simple suture; (2) Murphy's button; (3) Robson's bone bobbin. McGraw speaks very highly of the elastic ligature, and Willy Meyer also has used this method with success. All sorts of appliances have been devised, in order to shorten the operation, since Senn introduced his decalcified bone plates in 1887.

Personally I prefer the simple suture. It is always at hand, gives perfect junction of the parts, and with care there need be no soiling of the surrounding tissues. Mayo[9] uses the posterior suture operation over the bone bobbin for benign obstructions, and the anterior method with the Murphy button in malignant disease.

Terrier, Roux, Hartmann, Barker and many others use the suture entirely, while Czerny and Rodman follow Murphy in using the button with the posterior method.

Petersen[12] in speaking of the von Hacker operation, as performed in Prof. Czerny's clinic, says, "When we see that in



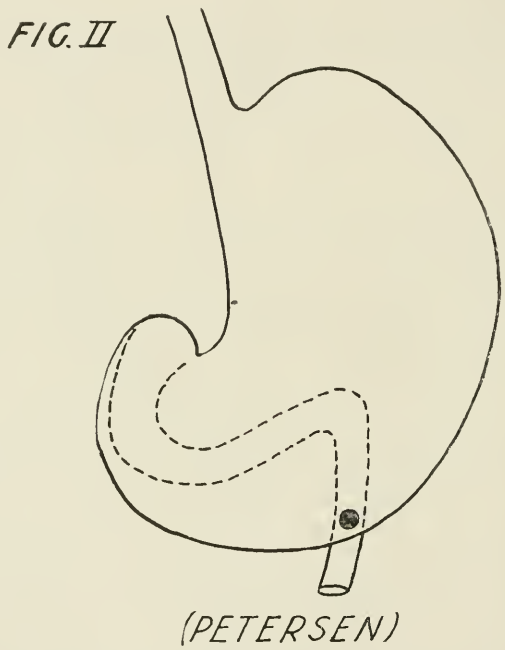
(PETERSEN)

the Breslau clinic (Chlumsky, Diese Bietrage, Bd. XX.) there were eight cases of reflux in a series of 43 operated on by von Hacker's posterior method, and in 215 cases operated on in the Hiedelberg clinic in a similar way, there was not one case of serious reflux, it is strong evidence that the reflux depends on a difference in the technique, and not on accidental causes. He cites von Hacker as reporting 60 cases without reflux. Petersen injected the stomach and upper part of the small intestine of a large number of cadavers with different hardening fluids, such as formol and paraffin. He found that the axis of the stomach was not vertical, as maintained by Doyen, Rosenfeld, Chlumsky

and others, but was directed obliquely from the left above to the right below. The two real fixation points were the cardiac end of the stomach and the horizontal portion of the duodenum. Normally, the lowest part of the greater curvature of the stomach lies a short distance below the duodeno-jejunal fold.

When the stomach is dilated, this distance is increased.

The point chosen for making the anastomosis should be the lowest part of the posterior surface. The jejunum is opened just far enough from its origin to reach this opening. Figure III also Fig. II show lateral views of the anterior and posterior methods. Czerny[13] in order to prevent the Murphy button



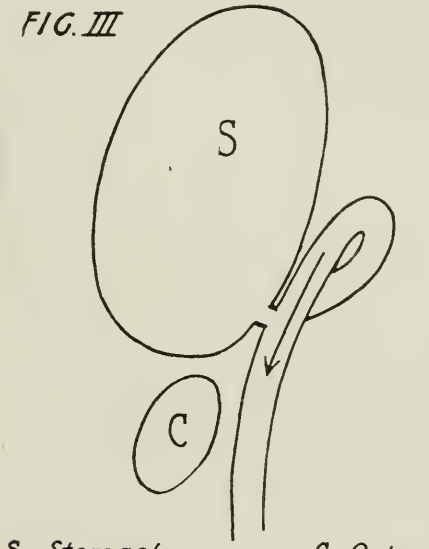
from falling into the stomach, has had the half of the button which goes into the stomach made smaller and lighter than the intestinal half.

One of the greatest bugbears of gastro-enterostomy has been the regurgitation of the intestinal contents into the stomach, and it is in order to avoid this that so many different operations have been devised. Roux of Lausanne, taking a hint from Wöffler, devised his Y operation, which consists in dividing the jejunum one or two feet from its origin, and implanting, first, the distal end into the lower part of the posterior surface of

the stomach, and then the proximal end, into the side of the distal portion of the bowel.

This has given him a very large percentage of recoveries. In 1898 Roux[11] with his Y method reported 24 cases without a death. He uses three rows of sutures, the two outer of silk, and catgut for the mucous membrane. Two anastomoses are necessary in this operation, yet its author performs it very quickly. I have seen him do it in 45 minutes, and he has done it in much less time. Two of my cases were done by this procedure and the results were perfect.

Tavel[14] carefully reviews the subject of reflux in gastro-



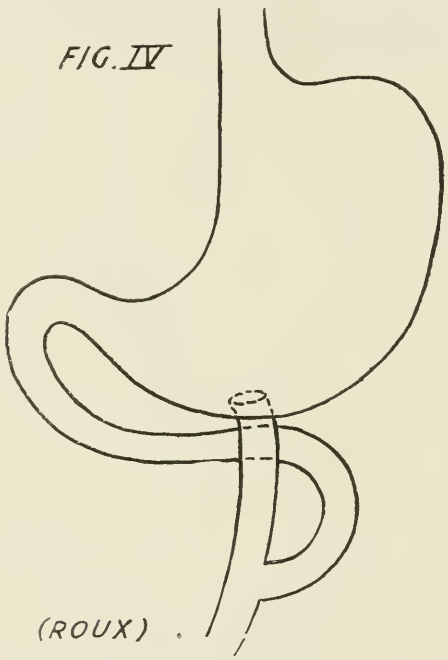
enterostomy. He speaks strongly in favor of the Y operation of Roux. He cites a very interesting case which illustrated the value of this procedure to the disadvantage of the Kocher, and of Wöffler-Braun-Jaboulay method, as both had been tried without success. It took five operations before a cure was effected.

Doyen[15] recommended the Y operation, but makes a lateral anastomosis of the proximal portion, with the distal portion of the bowel.

In order to obviate this trouble of reflux, Finney[16] devised a method of pyloroplasty or gastro-duodenostomy. This increases

the pyloric opening downwards for about 2½ inches. Mayo[17] reports 28 cases done in this manner with one death. The results of this operation have been very satisfactory so far. I have had no experience with it.

In my operations, the anastomosis has been made with three continuous rows of silk sutures. In all, except the second case, every fourth stitch was reversed, so as to prevent the stitches acting as purse strings. The opening in the von Hacker operation was two inches in length. In most of the cases an elliptical piece of the mucosa of the stomach was removed, as suggested by Moynihan. In joining the mucosa, I think it much



better to use fine catgut, a thread takes some time to be separated, and it may act as an irritant to the mucosa. In one of my experimental operations in which a partial gastrectomy had been done by Kocher's method, the dog had an enormous appetite develop three weeks after the operation. It seemed almost impossible to satisfy his hunger. When killed, at the end of four months, I found that the fine silk had not completely separated, but formed a loop in which were entangled several straws. A nice little brush was thus formed, which irritated the gastric mucosa. This might occur in the human subject, although the brush would probably be of a different nature.

The following short cases will probably describe the cases sufficiently for the purpose.

Case 1.—Mrs. P., aged 36. *Symptoms.*—Vomiting at frequent intervals during the last six months. A pain in stomach, fever, loss of appetite and weight, together with tumor in region of gall bladder. The stomach was dilated. *Provisional diagnosis*—Chlolelithiasis, with adhesions of pylorus, probably cancer. Operation January 6th, 1902. The tumor proved to be a cancerous growth on the outer side of the gall bladder, and on the under surface of the liver from the free border of which it projected 1½ inches. Small secondary deposits on the under surface as well as the upper surface of the liver beneath the ribs were seen. Surrounding the pylorus were dense adhesions which bound it to the liver and caused a kinking of the duodenum, with dilatation of stomach. There was a horse-shoe kidney with its convexity upward. No other abnormalities were present. Von Hacker's operation was done, the patient recovered rapidly, sat up on the twelfth day, and left the hospital six days later much improved. No pain or vomiting was observed after the operation. She returned to the hospital on February 20th, complaining of irregular fever and weakness. There was some dullness at the base of the right lung. The growth had increased in size, but no symptoms referable to the stomach were seen. She informed me that she had been feeling very well indeed until a few days previous to her admission into the hospital. She got rapidly worse, and died February 28th, 1902, fifty-three days after the operation. The autopsy showed primary cancer of the liver, with secondary growths in liver and right lung, together with a small empyema at base of right lung. Careful examination of the stomach, pancreas, intestines and rectum failed to show any abnormalities. There was a small supernumerary spleen and a horse-shoe kidney. The anastomosis between the stomach and jejunum was of good size and had drained the stomach perfectly.

Case 2.—M. H., aged 42, female. *Symptoms.*—Pain, vomiting, dilated stomach, tumor in pylorus, great emaciation, had lost 40 pounds in the last year. Duration of symptoms two years. Stomach contents, foul-smelling blackish fluid containing undigested food, strongly acid, no free HC ^{1}, but lactic acid blood and sarcanie. *Diagnosis.*—Cancer of pylorus. Operation September 11th, 1902, under cocaine. Present a tumor of the pylorus, enlarged lymphatic glands along the lesser curvature of the stomach, but no secondary nodules seen in the liver, von Hacker operation. *Result.*—Immediate relief of all symptoms, with gain in weight and spirits. Left hospital on eighteenth day. She continued to improve and was able to

walk around the house until the middle of November, when gradually got worse with a return of some of her old symptoms. She died November 28th, 1902, seventy-eight days after the operation. A partial autopsy was allowed. The tumor at pylorus was larger than at time of operation. Secondary nodules present in the liver: an anastomotic opening contracted three-quarters of an inch in diameter. An ulcerated area was found in the mucous membrane of the pars pylorica. Microscopic section showed it to be cancer.

Case 3.—W. E. A., aged 40, a commercial traveller. *Symptoms.*—During the last twelve years had pain after eating, vomiting, excess of acidity. Pain very severe at times during the last year. Stomach markedly dilated. Lost about 30 pounds in weight. *Examination.*—Thickening of pylorus, splash, peristalsis, with retention of large quantity of blackish, foul-smelling sour fluid, and undigested food. Test breakfast showed free HCl, sarcinae, but no lactic acid. Operation October 11th, 1902. Present, thickening of pylorus and some adhesions. The posterior operation of Roux *en* Y. *After result.*—Entire absence of all symptoms, gained in weight and spirits. Patient got up on the eighteenth day, and left the City Hospital three days later. On November 8th, one month after the operation, he developed a phlebitis in the right leg, which confined him to bed for about ten days. He got up and wore a flannel bandage. Early in December he left the city, feeling perfectly well as regards to his stomach, but complained of swellings of his legs. I have received several letters from him from time to time. He has been practically as well as ever, is working all the time and weighs 153 pounds, a gain of 34 pounds since the operation.

Case 4.—J. C., aged 75, a mill operator. *Symptoms.*—Indigestion and gradual loss of weight during the last year. For the last seven months the pain became more prominent, and was associated with frequent vomiting and great loss of weight and strength. From December, 1901, to November, 1902, he lost 68 pounds. A tumor was discovered in May, 1902. At this time there was markedly dilated stomach, damming back of the contents, with vomiting of foul-smelling acid fluid containing remnants of undigested food. A test meal showed free HCl, but no lactic acid or Boas' bacilli.

In October, 1902, the case came under the care of Dr. Glassco, who kindly asked me to see the patient. There was very marked emaciation, stomach dilated and extended two inches below the umbilicus, well marked peristalsis and splash, with a small hard lump at the pylorus. He refused operation and was removed from the City Hospital. He returned to the Hospital, November 5th, for operation. He had been confined

to his bed for two months, weighed 97 lbs., and was mentally dull. November 6th, 1902, cocaine anesthesia. Present, a growth, size of hen's egg, occupied the pylorus. Stomach was enormously dilated. The glands of the lesser curvature were enlarged and hard, no secondary nodules in the liver. The von Hacker operation was performed. Patient had very little shock and improved rapidly after the operation. He was able to get out of bed on the tenth day, and left the hospital on the thirteenth day wonderfully improved both physically and mentally. This man, who had been confined to his bed for two months, was able in less than two weeks after the operation to walk all around the ward without assistance.

Dr. Glassco furnished me with the following notes of his case subsequent to operation: "After leaving the hospital the patient made a steady gain in strength and weight (20 lbs. in four months) and from being an absolutely helpless old man, unable practically to take any kind of food without vomiting, he became able to do light work, and eat and enjoy almost anything. On March 1st, 1903, however, after eating a large meal of pork and canned corn, he was attacked by a severe enterocolitis, and in spite of every attention, he died, March 8th, presumably from the effect of the diarrhea."

We were allowed to make an examination of the abdomen a few hours after death. The stomach had returned almost to the normal size. The growth, which involved the pylorus, had contracted the outlet so as to prevent only the transmission of a lead pencil. There was an elongated ulcerated area $2\frac{1}{2}$ by $\frac{3}{4}$ inches in extent. The artifical opening was roomy and union perfect The microscopic section of the growth made by Dr. Bauer proved it to be cancer.

Case 5.—This case was referred to me (for operation) by my friend, Dr. Jas. Anderson, of this city, who kindly supplied me with the notes.

C.K., aged 32, a tailor. A small slight man. Symptoms, of four months' duration, consisted of pain in abdomen, usually an hour or two after meals. There is a feeling of distension with sour eructations, loss of appetite, followed later by vomiting of retained and undigested food. He was treated by various physicians for hyperacidity. On March 22nd, 1903, he consulted Dr. Anderson, who found a dilated stomach, which extended two inches below the navel, together with a small hard growth in the region of the pylorus. Peristaltic waves were distinctly seen beginning at the fundus and extending towards the pylorus. A tube was passed and about a pint of grumous, sour-smelling fluid removed. This contained lactic acid but no free HCl. He looked very pale, had a weak pulse, had eaten almost nothing during the last week or two, and since

November last had lost 24 pounds. The urine contained neither albumen nor sugar. Operation, March 30th, at St. Joseph's Hospital. Present, enlarged fibrous thickening of the pylorus, size of a hen's egg. The lymph glands along the lesser curvature were enlarged though not very hard to the feel. It was considered one of ulcer, with probable malignant formation. Owing to the debilitated condition of the patient, it was considered wise to make the Y anastomosis. The patient made a speedy recovery, sat up on the fourteenth day, and left the hospital one week later. All of his symptoms disappeared, and he returned to his work six weeks after the operation, having regained during this time about 24 pounds. Dr. Anderson told me a few days ago, that on examination, the growth could still be felt, and occasionally there was a little disturbance of his digestion, but nothing of importance.

The success of these operations has been due in great part to the able assistance of my friends, Drs. Malloch, Glassco, Rogers and Anderson.

NOTE.—Case 5 developed pain and distress in gastric region in the latter part ef October. The lump in abdomen was found by Dr. Anderson to have increased in size. He gradually became worse, developed cachexia and died Jan. 2nd, 1904. At no time was there any vomiting or obstructive symptoms. No autopsy was allowed. This was a case of cancer.

1. British Medical Journal, Aug. 1st, 1903.
2. Miteilungen a.d. Grenz. d. Med. u Chirug., Bd. x., s.i.
3. Surgical Treatment of Diseases of the Stomach, p. 82.
4. Revue de Chirurgie, Avril, 1902, p. 376.
5. The Lancet, Aug. 23rd, 1902.
6. Chirug. Operations Lehre, Vierte Auflage, s. 308, 190.
7. Annals of Surgery, July, 1903.
8. Beitrage zur. Klin, Chirug, Bd. xxxii., 1902.
9. Annals of Surgery, July, 1903.
10. Beitrage zur Klin. Chirug, Bd. xxix., s. 598.
11. Revue de Chirurgie, 1898, p. 1,110.
12. Beitrage zur Klin, Chirurgie. Bd. xxix., s. 598.
13. *Ibid.*
14. Revue de Chirurgie, 1901, p. 685, *et seq.*
15. Revue de Chirurgie, Th. 18, 1898, p. 1,112.
16. Johns Hopkins Hospital Bulletin, July, 1902.
17. Annals of Surgery, July, 1902.

REPORT OF CASE OF CESARIAN SECTION.

BY FRED. C. STEVENSON, M.D., BRADFORD, ONT.

I was called 7 a.m., January 30th, to attend Mrs. B. H. in her third confinement. She is a small woman, 4 feet 9 inches: weight about 115 pounds when in good health; thirty-five years of age: her first two confinements had been hard instrumental cases, both children alive. I found she had been in labor since 5 p.m., January 29th: os well dilated, with the head, a large one, above brim of pelvis: pains had stopped for over two hours when I saw her. She presented a very peculiar appearance: abdomen protruding forward to a point: she claimed her last menstruation period had begun February 4th, 1903, lasted nine days, and she thought she became pregnant March 1st, 1903; said she had felt vigorous movements of fetus for nearly seven months. If she is right in her dates, pregnancy must have lasted eleven months. A dose of ergot brought on the pains again about noon. I then ruptured the membranes, but there was only a little over half a pint of amniotic fluid, quite thick and turbid with meconium.

Sending for Dr. Campbell to administer an anesthetic, I tried to deliver her with the instruments, and although I used as much force as I dared, I could do no good, nor could Dr. Campbell, who also tried. We then held a consultation as to what had best be done. The child's head was very large and solid, the maternal passage very small. We came to the conclusion that the risk to the mother would be less to attempt Cesarean section than to do an embryotomy. We therefore telephoned Dr. Cummings, of Bond Head, to come at once, and made hasty preparations for operation. The house was a mere shack, with very unsanitary conditions prevailing both inside and out. Clean sheets, towels, wash-basins and lamps were gathered from the neighbors; a plentiful supply of water was boiled and saline solution prepared. The patient was prepared as well as possible, and we commenced the operation, with two neighboring women holding the lamps. Dr. Cummings gave chloroform, Dr. Campbell assisting me. The incision commenced three inches above umbilicus, and extended six inches below in the median line; all bleeding being controlled: packed long strips of plain gauze wrung out of a $\frac{1}{20}$ carbolic solution all around the uterus, which protruded well into wound; the incision in uterus was made the same length, nine inches: walls of uterus were found to be fully an inch in thickness; hemorrhage was profuse, but controlled by torsion. Dr. Cummings had now given her hypodermics of ergot and strychnine, and also was administering saline solution under the breasts. All bleeding being checked, the membranes were torn open, the child delivered, cord tied as quickly as possible, then the placenta and mem-

branes; in spite of our gauze packing, some blood and amniotic fluid escaped into the abdominal cavity, so we flushed out abdomen with normal saline till it came away clear, and left in as much as it would hold. Uterine wound was closed with continuous suture of medium heavy silk After all oozing had stopped, apron of omentum was drawn down over anterior surface of uterus; closed abdominal wound in two layers with silkworm-gut sutures; Bis. form. iodid. dusted on freely; pad of iodoform gauze held in place firmly with adhesive strapping; a layer of absorbent cotton with binder completed the dressing. She came through the operation in good shape, seemingly not suffering from any shock. For first twenty-four hours she was allowed nothing by the mouth except sips of water; saline enemas, 8 oz. at a time, were given every four or five hours; then for forty-eight hours she was allowed ℥i of bovinine in a little water every hour, after which she was allowed milk and soup in moderation. A vaginal douche every six hours, and urine per catheter at same time. For six days we had no rise in pulse or temperature. She had had some swelling and numbness of left leg for some time previous to her confinement, but was in no pain. On the night of sixth day she complained of pain in the veins of that leg, temperature went up to 101° and pulse to 108; dressing removed, and wound was found to be healed. As there was no sign of irritation about the sutures they were not disturbed. A mixture of ichthyol, belladonna and glycerine was applied to left leg and thigh with hot flannel stupes over it, and bowels freely moved with magnesium sulphate. This treatment was kept up for a week, when phlebitis subsided, and temperature and pulse soon became normal again and she has since made an uninterrupted recovery.

I may here state that the child, a strong, healthy boy, weighed 9½ pounds; he was kept at the breast till his mother had no more nurse for him, the course of magnesium sulphate seemed to "dry her up."

The child's head measured transverse diameter, 4½ inches; occipito frontal, 5½ inches; postfontanelle completely closed; anterior open but small; cranial sutures firmly knit.

The results in this case are all that could be desired, mother and child being strong and well. The mother said she was free from pain and soreness within twenty-four hours of operation.

It seems to me that this is an operation that might be more often performed with advantage to both mothers and infants. How many women might be spared troublesome lacerations with all their ill effects, and how many infant lives might be saved!

Bradford, Ont., Feb. 24th, 1904.

SERUM AND SEPTICEMIA.*

BY F. ARNOLD CLARKSON, M.B.

Since Dr. Oliver Wendell Holmes in America, and Semmelweis on the Continent, introduced ordinary cleanliness into lying-in hospitals, the mortality of child-bearing has gradually fallen, till the aseptic precautions now in vogue have reduced it to a fraction of one per cent. But in private practice the number of cases of sepsis is still very large, perhaps as large as thirty years ago; but the type seems to be less severe, due, no doubt, to the use of antiseptics. Bacon[1] estimated that of all women dying in Chicago between the ages of twenty and fifty in the year 1895, 7.3 per cent. died of puerperal septicemia.

The treatment of this condition is still the *bête noire* of the medical profession, and no sure advance has been made during the last quarter of a century. A simple enumeration of the various remedies which have been advocated would occupy several pages. Success from the method of treatment has often been reported, and perhaps it was due to the medicines administered; but in this disease, oftener than in any other, a most hopeless case will sometimes recover spontaneously. The mortality is very high, regardless of the treatment adopted. Death in a few days is the result in a large percentage of cases.

When antistreptococcic serum was introduced a few years ago, we hoped that we had entered a new era, when we would be able to slay this terrible dragon at will; but after a careful trial the serum has not fulfilled our expectations, and we are still without a specific. Nevertheless, when one meets a case of septicemia of streptococcic origin, this remedy suggests itself, and good results sometimes follow.

The following case is reported, because of the large amount of serum which was used in conjunction with the routine medical treatment.

History of case.—Mrs. M., aged 30, married nine years; one child seven years ago. When twelve years old she was struck by lightning, and was in poor health till her marriage; family history excellent; both parents still living; patient was born when her mother was forty-five years of age.

Previous labor.—In January, 1896, she was delivered by forceps of a large female child, breach presenting. The labor was most difficult, the cervix being lacerated, and the perineum torn through into the rectum. Both were repaired immediately

* Read at meeting of the Toronto Medical Society.

1 Bacon: The Mortality from Puerperal Infection in Chicago. *Amer. Gyn. and Obst. Jour.*, 1896.

but the cervix failed to unite. Five months later she had a severe mammary abscess. After this confinement she suffered from pain in both ovarian regions, especially severe an hour or two after coitus. She also had a slight vaginal discharge.

Physical examination.—Patient small but well proportioned; pulse 90; stomach and right kidney prolapsed. A vaginal examination in May, 1902, revealed an enlarged uterus. She menstruated last on March 13th. The course of pregnancy was uneventful. Owing to the difficulty experienced in the previous labor from the large child, a modified diet, after Prochownick's method, was adopted in the last three months. The urine at no time showed any albumin, and the total solids were always normal in amount.

She entered hospital on December 15th, expecting to be confined on December 17th, but labor did not begin till January 14th, 1903, and was normal in every respect, except that more blood was lost than usual (about 8 oz.) which we attributed to the chloroform used to a slight extent during the perineal stage of labor. The uterus contracted well, and there was only a small abrasion of the vaginal mucous membrane. No douches were administered either before or immediately after parturition.

Her temperature for the first eight days was always slightly above normal, averaging 99.2°, with the pulse at 90, which was normal for her. On the ninth day, at 6 p.m., the temperature rose to 102°, but returned to normal after a brisk purgation. On the tenth, eleventh and twelfth days the temperature steadily rose till the nature of the disease was no longer obscure.

On the second and on the fourth days she complained of slight headache. On the sixth day this was so severe as to require phenacetin. She had no sleep on sixth night.

During this time the breasts were very painful because of distension. The lochia for the first six days were normal in quantity. On the seventh day there was a lessened amount of discharge with a slight odor.

On the ninth day, however, the patient felt so much better that she sat in a chair while the bed was changed. Towards evening the lochia became very offensive, and a hot douche was given. At 6 p.m. she had a severe chill, lasting twenty-five minutes, followed by nausea and vomiting.

Next morning, after free catharsis, the temperature was normal, but by evening had again risen to 100°.

On the eleventh day, with the temperature still rising and the pulse 100, an intra-uterine douche was given, but the water returned clear. During the night she had two severe chills, each lasting twenty minutes.

Dr. Silverthorn saw her in consultation on the twelfth day.

The uterus was gently scraped with the finger, flushed with sterile water and packed with iodoform gauze, the patient being under chloroform. Practically nothing was found but a few shreds of tissue, and these were unfortunately destroyed so that no bacteriological examination of them was possible.

The diagnosis was septicemia, probably arising from an old salpingitis, and the patient was given nutrients, stimulants, normal saline by the bowel, an iron mixture, and antistreptococci serum subcutaneously. We began with 10 cc. on the twelfth day, all we could obtain in the city at that time. The next day the patient received 50 cc. in three injections. For the eight following days she received from 20 cc. to 110 cc. in twenty-four hours. The largest injection given at one time was 50 cc.

On the twentieth day of the disease (February 3rd) she received a total of 110 cc., which produced a general urticaria, persisting for three days with a great deal of annoyance to the patient. For the four days following this large dose the temperature gradually fell, till on February 7th it reached normal. The pulse also improved a good deal.

On February 8th, however, the temperature again rose to 103°, and resumed its erratic course till the death of the patient on the forty-fourth day after confinement. The injections were kept up at intervals till the forty-first day. Altogether 935 cc. of serum were administered, chiefly in the thighs and buttocks, no abscesses developed, nor were the sites of operation painful.

The blood examination on February 3rd showed reds, four million; whites, six thousand: and hemoglobin, 65 per cent.

On the twenty-second day she developed phlegmasia of the left leg, followed ten days later by the same condition in the right. There was, however, very little pain.

The only other point worthy of record was a petechial rash which covered the whole body, appearing on the twenty-ninth day and lasting seventy-two hours. The discrete, punctate hemorrhages gave rise to no discomfort.

On the forty-first day the temperature rose again to 101 degrees, accompanied by pain, dyspnea and other signs of pneumonia, and the patient succumbed on the forty-fourth day after labor. No autopsy was obtained.

The effect of the serum was hard to demonstrate; it may perhaps have supported the heart, for the pulse was always good, but beyond a slight decrease in the temperature after injection it had little effect upon either the pyrexia or the rigors.

The points of peculiar interest in this case are: (1) The slight post-partum hemorrhage. A number of recorded cases

of puerperal sepsis have noted a larger quantity of blood than usual. (2) The late onset, ten days after confinement. (3) The length of the illness, in spite of the severe nature of the disease. The temperature several times reached 107.2 degrees (4) The tolerance of alcohol, an observation often made in septic cases. This patient took very large doses of whiskey and of champagne without the slightest sign of intoxication.

In diphtheria as high as 25,000 units of antitoxin have been given, and we persevered with this serum because we were unable to find any reports of the effect of large doses. Of course the mode of action in the two sera is different, the efficiency of the streptococcic serum seeming to depend upon the increased phagocytosis which it establishes. In acute cases the best results have been obtained from large doses of serum prepared from a streptococcus of human origin. Unfortunately there is yet no way of arriving at a standard as in antitoxin, and the only measure of its potency is upon the individual.

In regard to the bacteriology of this disease, it is possible that, although the streptococcus may be found in the lochia, it may be present only as a saprophyte, and the septicemia may be due to the gonococcus from an old pus tube or to some other bacterium in another undiscovered focus.

Great stress is laid, too, on the bacteriological examination of the blood, but this is not always helpful to the diagnosis. Houghton[2] has shown that approximately normal blood contains pyogenic bacteria in a greater or less degree, and concludes that the bacteriological examination is of very little value in the diagnosis, prognosis or treatment, because organisms found in the blood to-day may be absent to-morrow.

There is one contra-indication for the use of antistreptococcic serum. When there is a walled-off collection of pus, the serum increases the absorption of the toxic products. A persistent absence of leucocytosis may also be regarded as a sign of ill omen.

[Reports of this kind are very valuable, and I should like to get as many as possible. I do not, however, agree with some of the conclusions. The onset in this case was not late (in my opinion). The most common symptoms of sepsis were present from the second day and thereafter, viz., headache, sleeplessness, high temperature, and rapid pulse (a persistent pulse-rate of 90 for nine days after should never be considered normal). As to the serum, I think that if two doses of 20, and 10 cm. within twelve hours do not cause a decided improvement, further administration will do no good, and is likely to do harm.— A. H. W.]

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2 Houghton: *Jour. Amer. Med. Assoc.*, Vol. 41, page 933, and *Post-graduate*, New York, September, 1903.

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, H. J. HAMILTON, C. J. COPP AND F. A. CLARKSON.

The Dose of Antitoxin.

A common practice in this country has been to administer 500 antitoxin units as an immunizing dose. By many this dose is considered inefficient, and some, in all suspected cases and as a prophylactic, administer 1,000 units. Unquestionably this is the better practice. There is no reason to think that any harm results from the larger dose, and if it is desirable to immunize the quantity employed should be sufficient to meet the indications. In the treatment of the slightest cases from 1,000 to 2,000 units have been employed, and in the more severe, where the nose or larynx is involved, or where there are persistent membranes upon the tonsils, it has been common to employ 4,000 units. The statistics in this country, both in hospital and private practice, show a very marked lessening in the mortality from diphtheria, the results being largely related to the time at which the injections are made. If a sufficient immunizing dose is employed on the first day there is practically no mortality, the second day the mortality is slightly greater, and after the third, fourth and fifth days there is a corresponding increase. The dose employed in this country is much smaller than that commonly used in England, and the charge is made by English writers that the failure to save advanced cases of diphtheria, some of which are almost moribund, is due to the fact that the antitoxin is given in too small doses. It is by no means infrequent in English hospitals to administer 10,000 or 20,000 antitoxin units to severe cases of diphtheria. The statistical results in these cases are certainly far ahead of that reached by American pediatrists in the treatment of severe forms of diphtheria. Unquestionably the smaller dose in the early stages is quite sufficient, but where the disease has gained some headway, the antitoxin must be used with a free hand if life is to be saved.—*Medicine.*

Wine and Alcoholic Beverages in Dyspepsia.

Dr. Albert Mathieu (*Revue de thérapeutique*) considers that the routine use of alcohol in gastric disorders is not to be tolerated, though Boas has shown that in small quantities it stimulates stomach digestion. Alcohol, when injected directly into the organ, has a direct action upon its lining and a chemical action upon its contents. Linossier has shown that alcohol

diminishes the peptonizing power of the gastric juice and has the same action upon the trypsin. Alcohol also retards the inversion of saccharose in the presence of beer yeast. Dastre has proven as well that it also interferes with pancreatic digestion. It is therefore evident that in marked gastric lesions, such as ulcer, cancer, gastritis, with congestion of the peptic glands or atrophy of the same, alcohol is contra-indicated not only because it retards digestion and increases the pain, but also since it aggravates the lesion. The patients who appear to be benefited by the use of alcohol are those whose stomachs lack motor power and who have a sensation of weight or inflation after eating. Such find relief from a small glass of cognac or liqueur at the end of a meal. It is probable, however, that even in these cases the habit increases their disease in the end. They may better take a glass of hot, well diluted, red or white wine during or after the meal from time to time. The author believes that patients troubled by acid regurgitation may be relieved by taking white wine, preferably sparkling, well diluted. Wine, especially red wine, increases the discomfort of those with a tendency to gastric stasis and distress. In all cases the use of wine should be left off and renewed from time to time if it is to produce its best effect.—*American Journal of Medical Science.*

The Nature and Medical Treatment of Spasmodic Asthma.

In a paper read before the Manchester Clinical Society, and published at length in the *Medical Chronicle*, Arthur T. Wilkinson considers his subject under three headings:

1. The condition of body which makes the attack possible.
2. The exciting causes.
3. The attack itself.

He regards asthma as an abnormal condition of a normal protective reflex similar to vomiting, both act in a similar manner in specially susceptible persons. All persons do not vomit after an indigestible meal, nor do all have asthma after a peculiar stimulus to the respiratory passages. The afferent disturbing impulses may descend from the brain or travel up from the ultimate parts of the body to the centre concerned. Still in almost all etiological lists it will be found that the bulk of the causes are rare, and some two or three groups practically are responsible for all the cases ordinarily met with, and the vast majority of these are in association with the respiratory tract. Superfluous tissue in the nostrils and post-nasal adenoids themselves, or as the nidus of manufacture of the exciting cause undoubtedly give rise to asthma, though the majority of cases treated for such have to return to the physician. When such is the case he speaks very highly of arsenic given as Fowler's sol.

℥. iii., raised to ℥. v. t.d.s. p.c. and continued for several months: and next to this Pot. Iodid gr. v. t.d.s. et. h. s. for a long period. He does not consider hydriodic acid as in any way superior, and recommends when diminishing dose to continue last dose of the day and discontinue earlier.

He regards most cases as having a definite exciting cause, the discovery of which is essential to cure; and draws particular attention to the external or rarer causes, and claims that when the patient's troubles are marked sneezing and coryza, one should expect a particular cause. The more gross the irritant the less likely are we to have typical bronchial spasm. Citing the usual causes, he draws particular attention to the emanations from animals—horses, cats and dogs, also birds—and especially when these are shedding their coats, and claims that many persistent "colds" may be due to such apparently trivial causes.

Persistent asthma probably means a persistent cause, and may lie within the patient, such as an abnormal condition of the respiratory mucous membrane or some circulating toxin.

In the treatment of the attack itself he speaks highly of hot applications between scapule and in front of the chest; also of the nitrates, especially the potassium salt. He does not think there is any advantage in combining it with belladonna. In the nitrites he has been disappointed and deprecates the use of chloroform and morphine except in selected cases. C.J.C.

Some New Light on the Blood in Malignant Disease.

Dr. Ernest Cunliffe (*Medical Chronicle*, Manchester) gives in brief the result of a year of fellowship work in the blood in carcinoma and sarcoma. He examined a large number of cases by the simplest and most reliable of known laboratory methods, and in the conclusions he is able to draw brings into prominence several facts of interest, including the attaching of importance to the frequency of leucocytosis.

The following are the results of his observations:

1. There is a constant decrease in the hemoglobin and hemoglobin index.

2. The number of red cells is unaffected until the case is advanced or has suffered loss through hemorrhage.

3. *Leucocytosis is the rule.* It is caused especially by hemorrhage, metastasis, ulceration and septic infection. It may be absent, however, throughout. Its sudden occurrence in such an instance indicates the probability of a metastasis.

4. The poly-morpho-nuclear neutrophils are increased in number. This feature may be present without the total number of leucocytes being raised, and in this relation points to the presence of malignancy. It is therefore a diagnostic sign of importance. H. S. H.

SURGERY.

IN CHARGE OF EDMUND E. KING, GEORGE A. BINGHAM, C. B. SHUTTLEWORTH AND F. W. MARLOW.

Carcinoma of the Colon and its Treatment by Colectomy.

A most interesting paper on this subject, written by Mr. Bilton Pollard, Surgeon University College Hospital, London, appears in the *British Medical Journal*, of January 23rd, 1904. Abstracts of seven successful cases are also given.

Mr. Pollard observes that columnar-celled carcinoma, as it occurs in the intestine, is apparently the least malignant of the carcinomata, it being a well-known fact that carcinoma of the rectum or of the colon may persist for a long time without greatly impairing the health, unless it gives rise to obstruction of the bowels, or leads by local extension to some grave complication ; and as implication of neighboring lymphatic glands or the occurrence of metastatic growths is, as a rule, only observed in the late stages of the disease, there is a well founded hope that if such cases can be dealt with in the early stages, when the patient is still in good condition, a large percentage of permanent cures will result.

Early diagnosis of such cases is, however, by no means an easy matter, for the onset is so insidious that such disease is frequently not suspected until it is far advanced, or until a tumor is discovered, or an attack of acute intestinal obstruction occurs. Hence a thorough systematic physical examination of the abdomen is imperative in all cases of chronic illness associated with dyspeptic symptoms.

The nature of the disease is such that the symptoms attending it are the results of some impediment to the passage of the intestinal contents. Indigestion, accompanied sometimes by nausea and sickness, is one of the commonest symptoms, and an almost constant one is marked flatulence, arising, no doubt, from partial retention and decomposition of intestinal contents. If retention is a marked feature, constipation will ensue, with the probable formation of scybalous masses on the proximal side of the growth, and by irritating the mucous membrane and so inducing an effusion of fluid into the bowel, these scybala give rise to a spurious diarrhea, so that alternating constipation and diarrhea is a very frequent symptom in such cases. In most cases pain occurs sooner or later. It is extremely variable in severity and as it is evidently due to intestinal colic it may or may not be localized and is not necessarily most marked in the region of the growth. Loss of flesh is not a marked feature in the early stages, but must

necessarily occur later. If such symptoms are accompanied by hemorrage from the bowel, either in the form of melena or as unaltered blood, the disease may be diagnosed with a fair degree of certainty.

A careful physical examination should be made, and in doubtful cases it is better to have the patient anesthetized than to run the risk of missing the tumor. By such an examination, a tumor will be readily detected in the majority of cases, but not so in others, for although a tumor may produce considerable constriction of the bowel, it may be quite small and not easily palpable, and especially will this difficulty be met if it occupies the splenic flexure and is hidden in the left hypochondrium, or the ilio-pelvic colon and hangs down into the pelvis. The transverse colon is apparently seldom affected primarily, so that tumors of the colon are generally situated in the lateral parts of the abdomen—in the hypochondriac, lumbar and iliac regions.

In the early stages of the disease such tumors are always mobile and it is only on the occurrence of secondary adhesions to the abdominal wall or to immovable abdominal viscera, or by implication of the latter by extension of the growth that fixation occurs, and it may happen that if another viscus becomes involved either by adhesions or by extension of the growth, the symptoms and physical signs pertaining to that viscus may to some extent overshadow those due to the original disease in the colon.

In the few cases where a tumor cannot be felt, in spite of the fact that the symptoms are well marked and very characteristic of the disease, an exploratory operation is quite justifiable, and if a tumor is discovered, and removal is not contraindicated, the operation should be converted into a curative one.

In discussing the treatment of the disease, Mr. Pollard advises that in cases of acute obstruction, when it will rarely be possible to feel the growth, the abdomen should be explored through a medium incision below the umbilicus. If the piece of bowel containing the tumor can be withdrawn from the abdomen the obstruction may be relieved by opening the bowel on the proximal side of the growth and tying in a Paul's tube. Later on the piece of the bowel containing the growth may be excised, and still later the continuity of the intestinal canal may be re-established. If the growth cannot be readily brought out of the wound, the obstruction should be relieved by making a temporary artificial arm higher up, and after the subsidence of all acute symptoms the growth may be removed through an incision made directly over it.

With the cases where no material obstruction is present, and

where a tumor can usually be felt, Mr. Pollard deals at length. An incision, which should always be an ample one, is made in most cases directly over the growth. Having opened the abdomen, a thorough examination of the tumor and its connections should be made, and the liver and lymphatic glands should be examined for secondary growths, in order to determine whether or not colectomy is possible and justifiable, and in this connection it should be remembered that mere enlargement of the lymphatic glands does not of necessity imply carcinomatous infection nor contraindicate colectomy.

In cases where colectomy is unjustifiable or impossible, relief may be afforded by the less serious operation of short-circuiting.

The amount of bowel to be removed is determined by considering the extent of the growth, the necessity of bringing the divided ends together without undue tension, and the desirability of carrying on the necessary manipulations outside the abdomen. Fortunately the length of the transverse, and also of the ileo-pelvic meso-colon, is such that these considerations may usually be observed.

The technique of his operation is detailed by Mr. Pollard, and the description is well worthy of careful perusal. In most cases end-to-end union by means of simple suturing, without the use of any mechanical contrivance is, desirable; but in cases where the lumina of the divided ends vary from that of small intestine to that of colon, closure of the divided ends with lateral anastomosis is advisable.

In the after-treatment of such cases, whereas rectal feeding is mainly depended upon during the first week, the patients are allowed a small amount of liquid nourishment by mouth on the day following the operation, which amount is gradually increased until at the end of a fortnight light solid food may be given.

The seven successful cases of which Mr. Pollard gives abstracts, were operated upon from two months to four years previous to the writing of his paper, and as all the cases were in a fairly advanced stage when they came under his notice, his excellent results should be considered to be most encouraging, and would lead surgeons to hope that in future a greater amount of attention will be devoted to the early diagnosis of the disease, for on that depends the possibility of the complete removal of a disease which in the early stages is distinctly localized, and absolutely amenable to surgical treatment.

F. J. W. M.

ORTHOPEDIC SURGERY.

IN CHARGE OF CLARENCE L. STARR.

Pneumococcus Arthritis.

Dunn and Robinson, *Lancet*, August 1st, 1903, report five cases of acute joint infection, in the East London Hospital, in which the pneumococcus was the cause. The ages varied from six months to six years. In two cases the knee was the only joint involved, in two there were multiple joint lesions, and in one the hip alone was affected. In all cases there was marked joint disorganization, although they were all subjected to early operation and thoroughly drained. Three cases died, and autopsies showed no primary focus in the lungs. In one case a pure culture of pneumococcus was obtained from the heart.

In four cases there seemed to be an antecedent cause, viz., pneumonia, bronchitis, otitis media and measles.

The writers conclude that the pneumococcus plays a much more important part in the acute joint infections of children than is generally supposed.

A Study of Good Results in Hip Disease.

V. P. Gibney, *Medical News*, September 13th, 1903, calls attention to the fact that many conditions may be mistaken for tuberculous hip-joint disease, such as trauma, periarthritis, coxa vara rachitic or traumatic, congenital dislocation, psoas abscess, poliomyelitis, etc. In reference to the aim of treatment, he says, "Good results are those with the minimum of shortening, without deformity, and with the maximum range of motion. Results must be studied on a basis of the stage in which well recognized methods of treatment are begun. The keen diagnostician will recognize the lesion before the deformity arises, and at an early stage, while the poor diagnostician will fail to recognize hip disease until the mother of the child has already made the diagnosis herself. Then the second stage, that of deformity, will have been reached, and the advantages of early protection are lost. The tardy recognition of the value of instruction in orthopedic surgery by the medical schools is largely responsible for the destruction of hip joints and the hopelessness of restoring function to joints thus impaired. Now we have reason to hope for better results, because the large and well-equipped schools of medicine have within the last decade established such chairs, and the younger practitioners, who will soon make their influence felt, will increase the number of those who get efficient treatment before the second and third stages are reached. In the third stage we must be content with correcting deformity and eradicating necrotic areas and sinuses."—*Abstract American Medicine.*

Clinical Observations on Backache.

Lovett, *New York Medical Journal*, May 30, 1903, in considering the subject from the point of view of an orthopedic surgeon divides the causes of backache into two groups: (1) Those due to causes existing in the spine itself; and (2) those due to causes outside of the spine, as in the feet. In the first group he puts those static cases which are due to faulty attitude. Describing the correct position as one with the mastoid process directly over Chopart's joint, and the hip joint a little in front of a vertical line joining the two, he states that it requires muscular exertion to maintain such position. Tired persons and those of feeble muscular development manage to substitute ligamentous for muscular support, and to do this the pelvis is pushed forward, the upper portion of the trunk is thrown back, and the chin and head carried forward, giving the attitude so familiar and known as round shoulders. The ligamentous strain which is usually accompanied by overstretching of tired muscles is often accompanied by pain, especially in young women whose nervous resistance is impaired. These cases, obviously due to faulty attitude, are often classed as irritable or neurasthenic spines.

Treatment consists in improvement of the general condition, with rest on the back for a large part of each day. But the real cure is in the development of the spinal muscles and the acquirement of the erect attitude. Gymnastic exercises of the mildest type at first, and gradually increasing in force, following the line of the "setting up" drill of the military recruit.

Also included in the first group are those causes of backache due to *lateral deviations*, for while the ordinary lateral curvature of moderate degree is not painful, there are cases, especially those due to a shorter leg on one side, which are, the pain oftenest being on the stretched rather than on the compressed side. Relief comes by correction of short leg together with gymnastics.

Sprains of the back caused by wrench or jar as in falls, or starting of a carriage, or stroke of golf, the severe form of which is familiar under the name of "railroad spine," are included. The treatment of the milder sprains is by recumbency, restriction of movement, massage, douching and light gymnastics. The severer types, the writer thinks, should be treated as a similar sprain elsewhere would be. A sprained ankle is put at rest in plaster, but a sprained back is put on a sagging mattress. A plaster-of-paris jacket is indicated. *Potts' disease* and *Arthritis deformans* are also mentioned as causes of backache and appropriate treatment suggested.

Passing to the causes of backache existing outside the spine, the writer mentions the several types of mechanical difficulties

of the feet: the real flat foot, the pronated foot and the contracted foot—with a not uncommon accompaniment—metatarsalgia or Morton's disease. These disabilities of the feet are commonly associated with pain in the small of the back which shoots down the thighs in some cases. The cause of the pain is the constant attempt at adjustment of the lumbar muscles in an effort to balance and relieve the strain on the feet. The obvious relief of the backache in these cases is the correction of the flat foot, pronated foot, or contracted foot by proper support by means of plates or a high artificial shank.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, K. C. McILWRAITH, FRED. FENTON AND HELEN MacMURCHY.

Puerperal Sepsis.

"Puerperal Sepsis and its Treatment by Iodine" is the subject of a paper worthy of careful study which appeared in *The New York Medical Journal* and *Philadelphia Medical Journal* of January 23rd of this year, from the pen of Dr. William R. Pryor, Professor of Gynecology in the New York Polyclinic Medical School.

The author says that "only about twenty-five per cent. of all cases of puerperal fever are strictly septic," and in view of the high mortality attending the septic form "it is highly important that we determine what cases of puerperal fever are septic and what are not; otherwise rational treatment is impossible." For this purpose "bacteriology is of the utmost importance."

The investigations of Dubendorfer prove that in a very large percentage of pregnant women septic organisms may be found on the *vulva*, especially streptococci and the colon bacillus. "It is evident, therefore, that an examination of the vulvar napkin after delivery is not a safe guide to a determination of the nature of the infection in a particular case." While opinions differ as to the sterility of the vagina, Dr. Pryor states that "the overwhelming burden of evidence is in favor of common presence of streptococci and colon bacilli in the *vaginæ* of pregnant women," and that "we are compelled, then, to base a diagnosis of puerperal sepsis upon an examination of the contents of the *uterine* cavity." Even here he says that "the burden of proof is in favor of the occasional presence of germs which are known to be pathogenic in the uterus of puerperæ who are free from fever," and that "the conclusion is forced upon us that the genital tract of the puerperal woman may

harbor pyogenic cocci and bacilli without detriment to her." In such cases they lie upon the endometrium only, and do not penetrate its substance, in which cases they "produce but litt e clinical disturbance unless drainage is interfered with."

Dr. Pryor collects the lochia in a sterile tube introduced directly into the uterine cavity.

If the bacteriologist reports that he has an "infection by either the streptococcus pyogenes, the staphylococcus, or the colon bacillus, and if the constitutional symptoms are not grave, he washes out the uterus first with Thiersch's solution, then with boric acid, and *packs it full* of ten per cent. or even twenty per cent. iodoform gauze." "If this method of procedure does not suceeed in controlling within six hours a case of streptococcic endometritis, I feel sure, he says, that the germs have penetrated deeply into the mucosa, and that we have to deal with a case of true puerperal sepsis."

The author states that "in no instance in which I have found cocci in the uterus have I failed to find them also in the fluid of the peritoneal cavity," and "from these examinations I am forced to the conclusion that in streptococcus septic puerperal fever, pelvic lymphangitis and phlebitis are early complications." Having satisfied himself that he is dealing with a true puerperal sepsis, the author proceeds at once to operate as follows: "The cervix is thoroughly dilated, and the uterus curetted and then irrigated with saline solution and packed full of ten per cent. iodoform gauze." "By a broad incision the posterior cul-de-sac is opened." "The pelvis is now packed *full* of iodoform gauze of five per cent. strength." The usual treatment of septic cases is of course followed out in all its details.

"In three days the uterine dressing is removed and is not renewed unless the cavum uteri is large." "The cul-de-sac dressing is removed in one week and is renewed."

The results of this heroic method have been most gratifying; out of forty-three cases operated upon there was but one death, a mortality of less than two per cent. This is certainly worthy of the careful consideration of every practitioner, and especially so when one reviews the death rate under other methods of treatment, viz.: curetting alone twenty-two per cent.; anti-streptococcus serum, thirty-three per cent.; hysterectomy, fifty-five per cent., let alone treatment, from seven to twenty-five per cent.

Dr. Pryor concludes his most interesting and instructive paper, of which this is but a superficial review as follows:— "Even though our enthusiasm for this treatment, this isolation of infecting organ and the establishment of local and systemic iodism, be not shared by you, I am not asking too much when I expect you to grant that: (1) In no case has death resulted

directly from the operation; (2) there is no mutilation; (3) the pelvis is rendered free from streptococci; and the results can be accounted for in no other way than as the result of the action of iodine." "My own belief is that the mortality would be much lower if the operation were applied as soon as the cases were shown to be septic." F. F.

Ovariotomy During Pregnancy.

Heil insists that every pregnant woman who complains of abdominal pain referable to the genital region, must be carefully examined. Laparotomy is to be performed in every case in which the diagnosis hinges between extrauterine pregnancy and an ovarian cyst. The tube of the affected side is to be left, if possible, in order to avoid disturbing the uterus. The abdominal route is always to be chosen.—*N. Y. Med. Jour.*

Duhrssen's Incisions.

Hofmeier reports two cases of labor in women upon whom in a previous confinement Dührssen's quadrilateral incisions of the cervix had been made. In the first case there was prolonged labor with death of the fetus and ultimate artificial dilatation of the cervix with bags. In the second case, death of the mother and child took place after a very difficult labor, the former dying of a rupture of the uterus with internal hemorrhage. Hofmeier points out the danger of these incisions, and says that if cervical incisions are necessary, they should be limited to the anterior and posterior walls of the cervix, avoiding the lateral cuts, as thus the vessels, at least, are not likely to be injured. The complications in both the recorded cases were to be traced to the former quadrilateral incisions.—*N. Y. Med. Jour.*

Extrauterine Pregnancy.

Dr. A. H. Cordier, of Kansas City, Mo., discussed the pathology, diagnosis and treatment of this condition. In ten years he had encountered fifty-four cases. Intraperitoneal was to extraperitoneal rupture in the proportion of three to one. The diagnosis of ectopic pregnancy prior to rupture was attended with great difficulty and was rarely made. The question of the treatment of these cases was so thoroughly settled as to admit of very little discussion. The operation of choice was a median suprapubic section, with removal of the misplaced structures.—*Amer. Med.*

Editorials.

MAJOR OBSTETRICAL OPERATIONS.

Our views as to the indications for the various major operations in obstetrics have changed materially during the last few years. Porro's supra vaginal amputation of the cervix after removal of the child was popular for many years after its introduction in 1876. Since, however, Sänger introduced his method of performing Cesarean section in 1882, the Porro operation has rapidly lost ground. One of the supposed advantages of the Porro with the extra peritoneal treatment of the stump was that it could be more easily performed by a general practitioner who was not an expert abdominal surgeon. It was also considered a safer operation when there was infection. The surgeon of to-day, however, does not attach much importance to these considerations, and generally thinks it a very unsatisfactory if not a crude operation.

Symphyseotomy is also fast losing its shortlived popularity. In a late report, Tessier, of Paris, gave notes of the histories of twenty women who had been delivered by symphyseotomy, during the period 1898 to 1903 (February). The patients were operated on at seven different hospitals. Four only out of twenty escaped without some undesirable sequelæ, the remaining sixteen being more or less damaged by the operation. One patient has been a chronic invalid for five years; eight suffered from phlebitis; ten had urinary trouble during months or years, incontinence of urine being the most common affection. A number had difficulty in lifting or going upstairs.

A few years ago an operation was, in a large portion of cases, considered successful when it did not cause the death of the patient. Many of the operators were not frank, or at least prompt in reporting the disastrous results of symphyseotomy, such as those mentioned by Tessier. While it has many disadvantages, it is doubtful if it has one advantage over Cesarean section. From the present trend of obstetrical surgery, it seems not unlikely that Porro's operation and symphyseotomy will be considered obsolete in the near future. It is to be hoped that all forms of

embryotomy of the living child will be placed in the same category. Cesarean section is now becoming very popular in skilled hands; its mortality has been diminished to such an extent that it is now placed at three or four per cent. in cases where women have not been infected before the operation.

We publish in this issue a report of an interesting case in which Dr. Stevenson performed a successful Cesarean section under very adverse circumstances with the worst possible surroundings. It is considered by many that the Cesarean section ought, if possible, to be an operation of election, and not an operation to be performed after failure to deliver by the forceps or other methods. The application of the forceps, however, and traction of the same, are not likely to do harm unless during the procedure the patient becomes infected, and with ordinary precautions there is no reason why such infection should occur. We congratulate Dr. Stevenson on his success, and quite agree with him that, in the interests of both mother and child, the operation of Cesarean section should be more frequently performed.

HOSPITALS IN THE UNITED STATES.

As reported in our last issue, the Johns Hopkins Hospital of Baltimore has suffered severe loss through the recent fire. It is reported that the direct loss in income, for a time at least, will amount to something like $60,000 a year. We are glad to learn, however, that it will not be for long. In fact, it seems not to be the habit of the citizens of the United States to allow worthy charities such as General Hospitals to suffer any length of time from want of money. We are told that Mr. Henry Phipps, the founder of the Phipps Institute of Philadelphia, has presented, through Professor Wm. Osler, $20,000 to the Johns Hopkins Hospital, to be expended in establishing a new out-patients' department for the exclusive treatment of consumptives. It is also reported that Mr. John D. Rockefeller has offered to give $1,500,000 to Johns Hopkins Hospital to cover the University's recent loss.

We learn from the *Buffalo Medical Journal* that the Buffalo

General Hospital has raised by subscription during the last year $185,000 for the purpose of liquidating certain indebtedness which has accumulated during recent years.

The citizens of Toronto are not likely in the near future to do anything so rash for our General Hospital.

Gifts and bequests to all sorts of hospitals in the United States are so princely in character and frequent in number that it is somewhat difficult to appreciate the aggregate sum per year of such gifts. During one week of last month the following sums were given or bequeathed: $48,500 to hospitals in Philadelphia; $42,000 to hospitals in New York; $15,000 to hospitals in Cincinnati and $3,500 to hospitals in Brooklyn.

NATIONAL SANITARIUM ASSOCIATION

A meeting was held at Government House, Toronto, March 14th, to consider plans for the furnishing of the Toronto Free Hospital for Consumptive Poor. The Hospital, which is now nearly completed, is intended for patients in the advanced stages of tuberculosis. Among those present at the meeting were His Honor the Lieutenant-Governor of Ontario, who presided; Mr. W. J. Gage, Chairman of the Executive Committee of the National Sanitarium Association, Dr. J. H. Elliott, Physician-in-Charge of the Muskoka Cottage Sanitarium; Dr. C. D. Parfitt, Physician-in-Charge of the Muskoka Free Hospital for Consumptives; Rev. P. C. Parker, Travelling Secretary of the Association, and many citizens of Toronto, both ladies and gentlemen.

After addresses by Mr. Gage, Dr. Elliott and Rev. Mr. Parker and others, the following resolutions were carried: A resolution moved by Mrs. F. H. Torrington, seconded by Mrs. Jean Blewitt, expressing approval of the establishment of a Free Hospital for Consumptives in the neighborhood of Toronto. A resolution proposed by Mr. J. L. Hughes, and seconded by Mr. H. P. Dwight, expressing approval of the establishment of public entertainments for the purpose of securing funds for the Hospital. An advisory council was appointed to take charge of such entertaiments.

A similar meeting of the National Sanitarium Association was held in Hamilton, March 15th. The principal speakers were Mr. Gage, Dr. Elliott and Rev. P. C. Parker. After reviewing the history of the Association, Mr. Gage suggested that if Hamiltonians wished to do more than they had done for the good cause, they might erect two pavilions one for men and one for women—in connection with the Free Hospital for Consumptives. These would cost $2,000 each to build and furnish, and $3,000 each a year to maintain. Dr. Langrill, Medical Health Officer, of Hamilton, thought it would be better to erect a local sanitarium on the mountain brow. Without acting on either of these suggestions, it was decided to form a local branch of the Association in Hamilton.

TURNING THE ENEMY'S GUNS.

The medical profession as a whole have, since the time that the value of Jenner's discovery became known, been successfully bringing statistics to prove the saving of life by the reduction of deaths by smallpox due to the introduction of vaccination. They have been subjected to the assaults of anti-vaccinationists, who have alleged that vaccination had produced many diseases, and against these assaults we have hitherto stood mainly on the defensive. But for the last few years one of the medical officers of an English municipality has been keeping the statistics of his charge, and the results are as interesting as they are novel and unexpected, and they recoil upon the anti-vaccinationists, whose guns are now turned upon themselves.

The statistics referred to are given with others in the "Transactions of the Eighteenth Annual Meeting of the Association of Executive Health Officers of Ontario," which is just to hand, from which we take the following article:

VACCINATION IN RELATION TO PUBLIC HEALTH.

Epitome of short address on the above subject made by Wm. Oldright, M.A., M.D., Professor of Hygiene, University of Toronto, member of the Provincial Board of Health.

The principal object of the speaker was to bring before the Association a class of statistics that is somewhat new.

Many people held that vaccination was injurious to the young, but from a recent article from J. M. McKenzie, L.R.C.P.E., Medical Health Officer, Kirkby, in Ashfield, which appeared in the *British Medical Journal*, August 15th, 1903, it was shown that in the years 1900, 1901, 1902, 8.49 of the children vaccinated had died, as against 16.01 of those not vaccinated, showing that the death rate was almost double among those not vaccinated.

The death rates in various diseases were discussed, and it was shown that almost invariably the statistics were in favor of vaccination.

From a table given in the article by Dr. McKenzie, the following summary of the three years is taken, showing the causes of death among 706 vaccinated and 281 unvaccinated children:

	Death rate per 1,000.	
	Vaccinated.	Unvaccinated.
Convulsions	2.83	10.67
Pneumonia and bronchitis	36.83	39.57
Marasmus	5.66	39.57
Meningitis	8.50	4.19
Diarrhea	14.16	35.59
Laryngitis	2.83	....
Pertussis	2.83	7.19
Hydrocephalus	1.46	3.59
Dentition	4.25	3.59
Measles	4.25	....
Tabes mesenterica	....	7.19
Congenital heart disease	....	7 19
Erysipelas	1.46	....

In commenting on the unlooked for and startling facts revealed in the above figures, and especially in the total result of 16.01 deaths per 1,000 amongst the unvaccinated, as against 8.49 amongst the vaccinated, Dr. McKenzie thought that amongst the reasons to be advanced for this favorable condition amongst the vaccinated, the chief one is that the products of the vaccine process have a beneficial and modifying influence on most of the other diseases. It is more than likely that the children of extremists and agitators—persons of neurotic tendencies—would be among the unvaccinated, but this would hardly account for the great difference.

In addition to the above class of statistics, an article in the *Medical Annual* was read, which stated that since 1884, 2,198 persons had been employed in the London smallpox hospitals. Of these only seventeen took the disease, of which thirteen had not been revaccinated, and four had never been vaccinated. Not one of the 2,198 who had been properly vaccinated had contracted smallpox.

Reference was made to the overwhelming mass of statistics

as to the saving of life in Allbutt's Practice of Medicine and in other works. The necessity of bringing statistics of this kind before the people was dwelt upon, it being very necessary to educate public opinion on the matter of vaccination, and herein must be exercised tact and firmness.

The method of securing good reliable vaccine, and systematic and efficient vaccination, was discussed at some length.

In regard to injurious effects from vaccination, the speaker had had only one case of vaccination turn out badly, the child being ill for about seven weeks with deep ulcers on the arm, from which he recovered with no ultimate ill results. Other children in the same family vaccinated with the same vaccine had showed no untoward result.

In contrast with this he had seen numbers of cases where vaccination had proved a bar to the loathsome and dangerous disease of smallpox.

The people should be educated to know that it is for their children's benefit to have them vaccinated, instead of having them live under the apprehension that they receive some lurking mischief.

THE DIETETIC VALUE OF PATENTED FOODS.

Dr. W. D. Haliburton, Professor of Physiology, King's College London, in an address delivered before the American Chemical Society at New York, in January last, on the "Dietetic Value of Patented Foods" (*N. Y. Med. Jour.* and *Phil. Med. Jour.*, January 23, 1904), points out the absurdity of the contentions of the manufacturers of many of these "goods." Amongst other things he shows that "nutritive" and "nitrogenous" are not synonymous terms, as is evidenced in the case of such a thing as whole wheat bread, in which the increased nitrogenous material is so "closely invested by indigestible cellulose, as to prevent its being acted upon by the digestive fluids, while the presence of this undigested residue in the intestinal canal excites peristaltic action and causes rapid evacuation, so that the food is retained in the intestine but a short time, and there is, therefore, but a limited opportunity for intestinal digestion and absorption to take place." He submits that "Alas! my poor brother" is a mistake if it is intended to convey the idea that the "brother" is contained within the bottle under contemplation, and points out that it represents little more than the urine of the animal. "Alas! my poor urine," would appear to be nearer the facts of the case than anything yet suggested. The "public" is a most gullible individual, but not much

more so than the "profession" appears to be if the "information" supplied to them gratis by the drummers of manufacturers is to be taken as a criterion. How often one is forced to spend valuable time listening to a discourse on food, or what not, from some boy just out of his teens, who regards you with a look akin to pity when you expose your ignorance by disclaiming any knowledge of his particular "food" or "fad." The estimate of the professional standing in this country must surely be low, when a manufacturer will announce that his "ine" contains "living red blood corpuscles," and points out that for that reason it is of especial use in anemia, and quotes many "well-known" doctors in support of his extravagant statements. If perchance there be any value in the mixture, we submit that the "Bourbon whiskey," "egg albumen," and perhaps the "glycerine" are not being given their due credit.

Professor Haliburton, in speaking of peptonized foods, says: "How often a perfectly reasonable and legitimate idea is reduced to absurdity through ignorance and exaggeration!" "We, for instance, see advertised or hear recommended peptonized beef tea." "The uselessness of such a preparation must be manifest when we bear in mind the constitution of beef tea or meat extract." "As we have already seen, it contains nothing capable of peptonization." It is not necessary to dilate further upon the subject. All our readers can, doubtless, multiply examples for themselves; but is it not time that the profession should bestir itself and shake off these barnacles who feed fat on what is, as often as not, laziness on the part of the medical man, who is prone to order one of these convenient and palatable but useless "foods" rather than prescribe what is not so pleasantly or easily taken, and which requires to have its proper method of manufacture explained or perhaps demonstrated to the patient or friends, but which would contain as much real food capable of assimilation in one drachm as the patented article does in an ounce? F. F.

AMERICAN INTERNATIONAL CONGRESS ON TUBERCULOSIS.

The next American Congress on Tuberculosis will be held during the Universal Exposition at St. Louis, October 3rd, 4th and 5th, 1904. As announced in a previous issue, Dr. E. J. Barrick, of Toronto, is president of the congress. Clark Bell, LL.D., barrister and President of the Medico-Legal Society of New York, is the Chairman of the Committee on Organization. Dr. Clark Bell paid a visit of a few days to Toronto in the

latter part of February, being the guest of Dr. Barrick. We learn from him that this congress is strongly endorsed by the United States Government, which has asked our Dominion Government to send delegates to the next meeting. The Canadian Government has officially accepted the invitation.

Dr. Bell was very much pleased with the work which has been already accomplished in the conflict with the "White Plague" in Canada. He considers that public sentiment in favor of legislation to prevent the tuberculosis is greater here than in any other country.

In addition to Dr. Barrick, president, the following officers and prominent laymen have been appointed as officers of the congress: Honorary Vice-Presidents—Dr. T. G. Roddick, M.P., Montreal, Que.; Sir William Hington, M.D., Montreal, Que.; Hon. Senator George A. Drummond; James Loudon, President of the University of Toronto; Hon. Wm. Mortimer Clark, Lieut.-Governor of Ontario; Hon. J. R. Stratton, Dr. John Ferguson, Prof. Adam H. Wright. Vice-Presidents at large—Dr. W. P. Caven, Toronto, Ont.; Dr. Daniel Clark, Toronto, Ont.; Rev. C. S. Eby, D.D., Bracebridge, Ont.; Dr. R. W. Powell, Ottawa, Ont.; Dr. W. H. Moorehouse, London, Ont. Vice-Presidents of Provinces — Dr. Albert A. Macdonald, Toronto, Ont.; Dr. J. A. Robertson, Stratford, Ont.; Mayor Adam Beck, London, Ont.; ex-Mayor James Cochran, Montreal, Que.; Mayor W. W. White, St. John, N.B.; Charles J. Coster, St. John, N.B.; ex-Mayor John Arbuthnot, Winnipeg, Man.; Dr. J. D. Lafferty, Calgary, N.W.T.; Dr. H. H. Chown, Winnipeg, Man.; J. A. M. Aikins, K. C., Winnipeg, Man.; Dr. G. A. Kennedy, McLeod, N.W.T.; Rev. Dr. J. C. Herdman, Calgary, N.W.T.; Dr. C. J. Fagan, Victoria, B.C.; Rev. Leslie Clay, Victoria, B.C.; Dr. S. T. Tunstall, Vancouver, B.C.

NEW PHYSICAL LABORATORY.

Memorandum from the Board of Trustees of the University of Toronto to the Minister of Education, regarding the erection of a new Physical Laboratory.

The Board of Trustees in submitting herewith the plans for a new Physical Laboratory, beg to direct the attention of the Government to the following statement regarding the present situation, which, in the opinion of the Board, demands immediate action:

The President, in his annual report to the Government, has repeatedly called attention to the necessity for a new building for physics, and in his report for the year ending June 30th, 1902, expresses the opinion that "the erection of a new Physical

Laboratory is the most urgent need of the University at the present time, and cannot be longer delayed without seriously impairing the efficiency of this important department." Since the time referred to the disabilities under which the work of the department has been conducted have so multiplied that action in the matter can no longer be delayed. The Department of Physics provides instruction to students, not only in Arts, but also in Medicine, Engineering, Dentistry and Household Science, the work in the last two subjects named having been added during the present year. For the larger classes the lecture-room accommodation is quite inadequate. There are this year four classes, containing respectively 180 186, 195 and 260 students. The Physics lecture-room is seated for only 135 students, and to show how serious the situation has become since last session (1902-03), it may be stated that, whereas it was necessary last year to divide one class and repeat the lecture, this year the increased numbers render such a division necessary in the case of four classes.

In the practical work the situation is even more serious. The total number of students to be provided for this year in the laboratories is 403, the accommodation for whom was found so inadequate that it has been supplemented by utilizing the space between the cases in the apparatus room, and by resorting to four rooms in the basement. Such temporary makeshifts as these, however, cannot continue to be used in fairness either to instructors or students.

Some idea of the inadequacy of the accommodation may be formed by comparing the total floor space available in Physics with that of the Departments of Biology and Chemistry, the former of which has three times as much space, and the latter about twice as much space as that at present allotted to Physics. In fact, the accommodation is so limited that it is not only insufficient for proper work but it is positively insanitary.

The estimated cost of the erection of the proposed building is $175,000. A further sum of $40,000 will be required for equipment.

With regard to the probability of future expansion in the Department of Physics, it should be added that, in the plans submitted, due allowance therefor has been made in lecture-room accommodation, and that whilst the Laboratory accommodation is planned only for present needs, the building, which is constructed on the unit system, can be readily enlarged for this purpose at any future time by extension of the wings.

Resolution adopted by the Executive Committee of the University of Toronto Alumni Association in regard to the Department of Forestry in the University of Toronto:

Whereas the scientific study of forestry is of the highest

importance to the agricultural, commercial and economic interests of the Province in view of its application to the preservation and improvement of the immense timber resources of the Crown, to the promotion of re-forestry among the farming community and to the establishment and care of parks and pleasure grounds in the various municipalities, as well as in view of its application to the solution of problems affecting the climatic conditions of the Province as a whole:

And whereas the Senate of the Provincial University has by recent statute provided a curriculum of study in forestry and has recommended the establishment of a School of Forestry under the direction of a professor of this subject and in connection with the Provincial University where such a school can be most efficiently and economically organized by the utilization of the teaching facilities already existing;

Resolved, That the Government be respectfully urged to give effect to the statute of the Senate referred to and to make such provision at the earliest possible date as will ensure the appointment of a Professor of Forestry of the highest qualifications and as will adequately provide for all other expenses incidental to the efficient organization and operation of such a school.

The Premier, in reply, said to a deputation, March 23rd, "not now."

NOTES.

Ophthalmological Congress.

The next International Congress of Ophthalmology will be held in Lucerne, Switzerland, September 19th, 20th and 21st, 1904.

Normal Saline Solution.

This term is often incorrectly applied to the ordinary salt solution which is injected subcutaneously or per enema. It should be remembered that the chemists' normal saline solution is nearly ten times as strong as our normal salt solution, which should be designated "physiological salt solution."

Professional Duty.

The *New York Medical Journal* reports another case of martyrdom of professional duty. Dr. Jos. P. Rooney, of New York, died in St. Mary's Hospital, Hoboken, February 4th. On January 18th, five firemen were injured at a fire in Hoboken. Dr. Rooney worked over each, in his shirt sleeves in the bitter cold, and refused to leave until all his patients were safely cared for. As a result his arms were frost bitten, and gangrene set in, which, in spite of all efforts, continued energetic and terminated fatally.

Deafness in New York Schools.

Superintendent Maxwell, it is said, states that over one-eighth of the children attending the public schools are afflicted with some sort of deafness; of these only some three per cent. are aware of their affliction.

Homewood Sanitarium, Guelph, Ont.

We are pleased to state that this worthy institution has had the most successful year in its history. The Superintendent, Dr. A. T. Hobbs, in his annual report for 1903, stated that one hundred and fifty persons were treated during the year, of whom more than one hundred were new patients. The Sanitarium is now being enlarged with a view to making accommodation for at least one hundred patients at a time.

Cancer Laboratory.

The fourth annual report of the work of the cancer laboratory of the New York State Board of Health, conducted at the Gratwick Research Laboratory, University of Buffalo, for a period beginning in 1902 and ending in 1903, was transmitted to the Legislature February 1st, 1903. It was sent out in the month of December in the latter year. It contains the report of the Director, Dr. Roswell Park, and several scientific papers, prepared by Drs. Harvey R. Gaylord, Cary N. Calkins, C. H. A. Clowes, Herman C. Matzinger, Irving Phillips Lyon and Roswell Park. These all pertain to investigations bearing on the question of cancer. Many of the papers are illustrated with microscopic sections. It is the most complete exhibition of research work that has been published in the United States, relating to the origin, causes and nature of cancer.

A Lunacy Certificate.

There was a sensational report in some of the Toronto papers recently to the effect that Lucy J. Stickle, of Spadina Road, Toronto, had issued a writ against Doctors Geo. B. Smith and W. T. Bryans, for the recovery of $10,000 damages. It was also stated that Dr. Clark, the Medical Superintendent of the Toronto Asylum, had decided that the patient was sane and ordered her to be liberated. We understand that up to 17th March, that is, about one week after the appearance of the newspaper item, no such writ had been issued. We understand also that the certificates were given in the regular way after a careful examination, nor was there any difference of opinion between Dr. Clark and the physicians who certified to the lunacy. It is stated, however, that the relatives of Mrs. Stickle are not satisfied with the actions of either the doctors mentioned or the authorities at the Asylum, and that Mrs. Stickle has been removed from the Asylum.

Personals.

Dr. Ingersoll Olmsted leaves for Europe April 7th.

Dr. W. P. Caven, of Toronto, expects to sail for England June 15th.

Dr. J. Milton Cotton returned from Toronto to Nassau, March 15.

Dr. Herbert Bruce, of Toronto, will visit England this summer. Probably in June.

Drs. Hutchison and Armstrong, of Montreal, Que., expect to leave for Italy April 10th.

Dr. Fabian Blanchard (Tor. '93) Lindsay, has been appointed Associate Coroner for Victoria.

Dr. J. T. Duncan, of Toronto, has removed to 165 Bloor Street East (Corner of Huntley).

Dr. Albert Vander Veer, of Albany, had a fall on February 28th, causing a Colles' fracture of the right arm.

Dr. E. D. Carder (Tor. '00) is now in Port Arthur taking charge of the practice of Dr. Beck.

Hon. Dr. Montague, of Hamilton, spent a portion of the month of March at Clifton Springs, N.Y.

Dr. A. T. Stanton (Tor. and Trin. '00), of Pontypool, will shortly go to England for post graduate work.

Prof. J. McGregor Young has been elected President of the Students' Union of the University of Toronto.

Dr. Herbert Benjamin Hutton, of Humberstone, has been appointed Associate Coroner for the County of Welland.

Dr. J. H. Hamilton (Tor. '03) has been appointed to take charge of the Kootenay Lake General Hospital, Nelson, B.C.

Dr. John Henry Wilson, of St. Thomas, has been made a member of the Dominion Senate, in place of Dr. Landerkin, deceased.

Dr. A. H. Richardson, Rainy River, has been appointed Surgeon in the Japanese Army, and left for the far East, Saturday, March 12th.

Dr. R. J. Gibson, of Sault Ste. Marie, has been appointed Surgeon to the Canadian Copper Cliff Company, in the place of Dr. Coleman, resigned.

Dr. Wilson Montgomery (Trin. '91) of South Monaghan, has been appointed Associate Coroner for the united counties of Northumberland and Durham.

Dr. T. A. Bertram, of Dundas, who went south about New Year's, on account of ill health, will probably return to his home as soon as the weather is settled.

Dr. Theodore Coleman has resigned his position as Surgeon to the Canadian Copper Cliff Company, and moved to Hamilton where he has gone into general practice.

Dr. Jos. Graham (Tor. '02), formerly resident *interne* at the Hospital for Sick Children, and now in the Toronto General Hospital, expects to go to England in April for post graduate work.

It is stated that Dr. Nicholas Senn, of Chicago, Ill., will shortly go to Japan to assume charge of the Medical and Surgical Corps of the Japanese army during the war with Russia.

Dr. W. Harle. Smith, of Toronto, has been seriously ill with nephritis. At the time of writing we learn that he is much better, his condition having steadily improved from day to day during the last week.

Dr. Geoffrey S. Beck (Trin. and Tor. '81) of Port Arthur, has been in poor health most of the winter. He has been living in Gravenhurst during the last month, and recent reports indicate that his condition is much improved.

Dr. Gerald O'Riely had an attack of La Grippe in January, followed by bronchitis and general debility. He spent the greater part of February and the first week in March at Preston Springs. He returned to his home March 7th with health restored, and resumed practice.

Dr. Milne, of Victoria, B.C., spent a few days in Toronto early in March. He conferred with various medical physicians respecting the meeting of the Canadian Medical Association to be held in Vancouver, next August. It is hoped that the members of the Association will spend three days in Vancouver, and at least two days in Victoria.

Dr. "Gus" Richardson (Tor. '86), after graduating, practised for a short time in Kamloops, and then acted as Superintendent of the General Hospital in Victoria, British Columbia, for about four years. He went to the Klondike in 1894 and practised in Yukon for about ten years. We regret to say that he is now in very poor health, and is staying with his father, Dr. Jas. H. Richardson, Toronto.

Dr. Jas. F. W. Ross, of Toronto, when last heard of was in Naples, Italy. From there he expected soon to go on tc London, and will probably sail from Liverpool for New York April 2nd. He expects to resume practice April 11th.

Dr. Peter H. Bryce, Inspector of Immigration of the Interior, after spending some time in his new offices at Ottawa, visited Quebec, where he arranged for the erection of a detention building for diseased immigrants. He paid a flying visit to Toronto February 27th.

Dr. Geo. McDonagh, of Toronto, had an attack of grippe with slight pneumonia in New York, being confined to bed for about a week. He recovered rapidly after reaching Nassau, returned to Toronto, March 21st, and resumed practice March 23rd.

The graduates of McGill University had subscribed some weeks ago more than a sufficient sum for the portrait of Dr. Osler, of Baltimore, who was for some years Professor of Physiology in McGill before he went to Philadelphia. We are told that two portraits will be painted, one to be hung in the McGill College, and the other to be presented to Mrs. Osler.

Dr. S. H. McCoy, of St. Catharines, after spending about two years in Great Britain, returned to Canada early in January, and was married January 25th to Mrs. S. M. Fraser, of Toronto Junction. Dr. and Mrs. McCoy sailed on January 30th, on the ss. *Cedric* for Liverpool. Dr. McCoy expects to return to Canada in about a year and resume practice in St. Catharines.

Dr. J. C. Mitchell has retired from the staff of the Toronto Asylum for the Insane. An appreciative address was presented to him March 7th. The following week he left for Great Britain, where he will investigate the work done in certain special hospitals. He expects to enter upon his duties as Superintendent of the new Hospital for Epileptics in Woodstock next Fall.

Dr. D. B. St. John Roosa, of New York, was entertained at a dinner at Delmonico's, March 1st, 1904. Dr. William Osler, of Baltimore, acted as chairman. Among those present were: Doctors Bull, Dellafield, Bache Emett, Gibney, Janeway, Polk, A. A. Smith, A. H. Smith and Weir, of New York: Vander-Veer, of Albany: Calhoun, of Baltimore: Black and Richardson, of Boston; Keene, Musser and Wilson, of Philadelphia. Special importance was attached to the function because it also commemorated the twenty-one years since the inauguration of post graduate medical instruction in the United States.

A Mrs. McPhail entered action against Dr. Milne Brownlee, of Woodstock, for malpractice, which was tried at the Assize Court before Mr. Justice Ferguson, March 9th. She is suffering from a deformity of the ankle resulting from a fracture, which she says the doctor did not set properly. His Lordship at the close of the evidence withdrew the case from the jury and dismissed the action with costs.

Dr. J. Herbert Austin (Tor. '93) of Kansas City, returned to his home in Canada last September on account of ill-health due to tuberculosis. Early in December he came to Toronto, and since that time has lived in Tent No. 4, Western Hospital. His condition has improved much during the last few weeks, and he is now able and glad to see those friends who desire to visit him.

Dr. Jno. D. Fotheringham, of Toronto, is now recovering from a severe attack of septicemia. A hand was infected Feb. 26th, and the following day pain and tenderness with lymphangitis extended to the axilla. During the following week the local signs spread slightly beyond the axilla, and the constitutional symptoms were for some days serious. On Monday, March 7th, he commenced to improve, and was soon declared by his physicians to be out of danger. At the time of writing, March 18th, he is able to sit up and is gaining rapidly in every respect. March 29th, Dr. Fotheringham is gaining strength and expects to sail for England in a few days.

Obituary.

DR. BATTELL.

Dr. Battell, of East St. Louis, Ill., U.S.A., formerly of Cobourg, Ont., died February 29th, 1904. The remains were brought to Cobourg, and buried March 3rd.

W. S. CHRISTOE, M.D.

Dr. Christoe, of Flesherton, died after a short illness, aged 80. He was graduated from Victoria University in 1866.

WILLIAM J. ANDERSON, M.D.

Dr. Anderson, of Smith's Falls, died Febrbary 19th, aged 65. He was graduated from Queen's University in 1861.

WILLIAM B. BURLAND, M.D.

Dr. W. B. Burland, a prominent physician of Montreal, died of pneumonia, March 21st, aged 60.

JAMES BENJAMIN CARRUTHERS.

Dr. Carruthers, of North Bay, while travelling from a camp at the north end of the Temiskaming Railway to the terminus, was taken suddenly ill, March 12th, and died almost immediately. Heart disease is said to have been the cause of death. He was a graduate of Trinity University of 1886.

WM. RICHARDSON, M.D.

Dr. Richardson, of Burlington, died at his late residence in that town after a long illness, March 14th, aged 61. Dr. Richardson had practised in Burlington over thirty years. He had a large practice, and at the same time took much interest in public affairs. He served a number of terms as Reeve, was Treasurer of the School Board, and for some years President of the Public Library.

MICHAEL KELLY COLLVER, M.D.

Dr. Collver, of Stevensville, died March 11th. He was a graduate of Victoria University in 1882, and a practitioner in Stevensville for twenty-one years.

MR. KNOWSLEY THORNTON.

John Knowsley Thornton, M.B., C.M., Edin., died at his residence, Hildersham Hall, Cambridge, England, January 3rd, 1904, aged 58 years. Mr. Thornton was at one time one of the leading abdominal surgeons in London, and performed distinguished service for several years at the Samaritan Fever Hospital. He began as an assistant to Sir Spencer Wells and finally achieved the highest fame as a bold, conscientious and careful operator.

He fell ill in 1896, suffering repeated attacks of influenza, complicated by gout. In 1898 he retired from practice, and until his death lived at Hildersham Hall, near Cambridge. He sought, through work in his garden and farmyard, to restore his lost vigor, a struggle which vainly continued through much suffering until peripheral neuritis finally exhausted his strength.

R. MILNE MURRAY, M.D., F.R.C.P.

We have to announce with deep regret the death of the brilliant obstetrician and gynecologist of Edinburgh, Dr. Robert Milne Murray, aged 49. About fifteen months ago, while on a professional trip to the country, he contracted a chill which led to serious lung mischief. Pos-essed of an excellent constitution, he made good resistance and some progress towards recovery. In the hope of complete restoration, he passed the greater part of last year in North Italy and Switzerland. Unfortunately the disease reasserted itself during the winter, and he died February 15th.

Dr. Murray was a large-hearted and many-sided man. In addition to his scientific gifts he had a fine artistic perception, he was an excellent draughtsman and a good musician. In sport he was a keen golfer and fisher, and during recent years travelled much. A man of delicate perceptions, always pleasing and genial, he possessed that sunny aspect which wins the heart. For much information concerning his life and death we are indebted to Dr Stenhouse, of Toronto. Dr. Murray was the Stenhouse family physician in Edinburgh before he specialized.

The Canadian Practitioner and Review.

VOL. XXIX. TORONTO, MAY, 1904. NO. 5.

Original Communications.

SOME POINTS ON TUBERCULOSIS.*

BY JOHN L. DAVISON, B.A., M.D.C.M., M.R.C.S., ENG.,
Medical Referee of the Imperial Life Assurance Company of Canada.

MR. PRESIDENT AND GENTLEMEN,—When Mr. Bradshaw did me the honor of asking me to present a paper to your learned body, I began casting about in my mind for a suitable subject. The selection seemed difficult. If you were all physicians, or if I were an actuary, the matter would have been comparatively easy. One likes to have something new to present, especially when speaking before a strange society. But when I had thought over the matter a few days I concluded that wisdom would counsel utility rather than novelty in the choice of a subject, hence the title you see on the agenda paper before you.

For, if there be any subject upon which, as actuaries and physicians, we can take counsel with a fair understanding of each other, and sympathy with each other, the subject of tuberculosis is surely that one. Many other questions pertaining to the longevity of applicants for life insurance are of paramount importance, but none of them is so well understood by the laity—I speak from a medical standpoint—as to tuberculosis, with, perhaps, the possible exception of alcoholism.

Apoplexy, capillary fibrosis, paralysis, chronic interstitial nephritis, cyclic albuminuria, alienation, degeneration, neuroses, *et al*, present equally interesting and important phenomena to the trained medical mind. From their nature, however, they are not so well understood by the actuarial world as is the subject under consideration to-night.

As to the importance of the disease we are all agreed. When I remind you that one person in seven dies from the White Plague of the North—that is, 14 per cent. of all mortality, at all ages, and in all social conditions of life, comes from the

* Read before the Insurance Institute of Toronto, March 10, 1904.

ravages of a microscopic bacillus, the existence of which was not known thirty years ago—there will be born upon you the great importance of as wide a knowledge of the question as may be possible, not only among the medical profession, but among the community at large. No one should be ignorant of a few of the important points in the life history of the germ which is causative of consumption, not even the rag picker in the street, nor the Chinaman who looks after your linen, nor the colored man who waits upon you in your hotel. For these people, and others like them, can do much to prevent the spread of the disease once they are fully seized of the idea that it is infectious. Dirt and unhygienic surroundings are detestable, but no amount of dirt, no environment, no amount of exposure, intemperance, want or vice, will *per se* produce tuberculosis. *Omne vivum ex ovo*—all life from pre-existing life—is the text of modern pathology. The tubercle bacillus is a living entity. The question, whence it comes, takes us back to that old abyss, the dawn of life, a question forever as unanswerable to the mind of science as to the eye of faith.

The germ, as I have said, is a living entity, with certain characteristics in which it differs from other germs, just as rye differs from wheat, the orange from the lemon, the oak from the ash. It must be present before anyone—no matter what his heredity, his physical condition, reduced it may be by alcohol, starvation, excesses, vice or other disease—can have tuberculosis. This germ, I say, must get into our system from without before we can contract tuberculosis. Now, two points upon which I wish to lay stress, are :

(*a*) An individual is more liable to contract the disease who lives in squalor, with unhygienic surroundings, whose system is reduced by vice, intemperance, other diseases, want, cold, dampness or overwork, mental or physical.

When we get down to the ultimate, the battle between the invading germ and the system it has invaded, is a battle between the tubercle bacillus and the white blood corpuscle, or, as it is called, the "leucocyte." Now, these terms, "white blood corpuscle" or "leucocyte," may not convey much idea to some of the purely actuarial part of my audience. Suffice it to say, that it is a small, microscopically small, portion of protoplasm, a substance something like the white of an egg; vitalized, generally globe-shaped, but capable of changing its form and position, capable of feeding itself, and of excreting what is not needed for its own growth and sustenance. The white blood corpuscle exists in countless myriads in the blood, muscle, bone, nerve tissues, and indeed, in all the tissues of the body.

When the germ, say a tubercle bacillus, finds entrance into an animal body, at once these white blood corpuscles—

phagocytes they are also called—rush to the breach to repel the invader. It reminds one of the lines in Milton's "Paradise Lost"—

> "Thenceforth on all sides to his aid was run
> By angels many and strong."

So the phagocytes rush to save the system from being overcome by the marauder, the tubercle bacillus, which once safely lodged and entrenched, will ultimately capture the whole body. The phagocytes make a strong fight, and endeavor to oust the invader, not by throwing him from the battlements, but by quietly surrounding him, enfolding him, eating him. Now, it all depends upon the relative strength of the phagocytes and tubercle bacillus as to which shall gain victory. If the phagocytes be weakened by disease, vice, intemperance, want, or *heredity* in the person of the man, woman or child in which they exist, then they may either decline the conflict, or risking the battle, be overcome by the stronger adversary, the tubercle bacillus. Then the citadel is won, and the tubercle bacillus, having gained an entrance and lodgement, begins at once to reproduce himself, to make his way to other spots where new foci are established, and worse than that, begins to manufacture an insidious poison, a toxin which circulates in every part of the body of the individual infected, producing weakness, lassitude, fever, want of appetite, bloodlessness, pains, headache, diarrhea, loss of flesh, night sweats, and other dread symptoms of the horrible scourge which we call tuberculosis. The point I wish to emphasize is this, if we wish to avoid disease we must keep our white blood corpuscle—which for our present purpose, is equivalent to saying our systems—in the strongest possible condition, so that they may be efficient to do battle, not only with the tubercle bacillus, but with many other kinds of germs, such as pneumococcus, which produces pneumonia, the Klebs-Loeffler bacillus, which produces diphtheria, and hosts of others which are constantly threatening the integrity of our health. I said just now that the tubercle bacillus gets to the system from without. The number of cases recorded in which it has been found in the new born at birth is so few that, considering the total number of cases of tuberculosis, they may be put down as zero in the mathematical sense of the term, or as an infinitely small number, and so disregarded. Thus we see that the disease is always contracted.

This brings me to my second point:

(*b*) What is the influence of heredity in this disease? We can most of us remember the time when consumption was regarded by both laity and the profession as entirely hereditary. The great Koch had not yet discovered the tubercle bacillus. The bacteria were practically unknown. Their life processes and their causative influence in various processes, such as fer-

mentation and putrefaction, were as yet not discovered. Then all the laity and the majority of medical men considered that an individual was born with the seeds (used in a very indefinite and unscientific sense) in him, that only needed time to develop. Why some children of tuberculous parents, and not all of them succumbed to the disease, was a question never answered. I say the majority of medical men believed so, but others in my recollection, before the tubercle bacillus had ever been heard of, believed that one person "caught" the disease from another. To this belief they came from long observation and clinical experience. They knew not in what the infection consisted, but neither did they in measles, or scarlet fever, or any other of the infectious or contagious diseases. If then it is clear that the disease is always from without, what is the point in heredity? In my opinion, this question is a very, very serious one for life companies.

Doctors claim that medicine is a science. It is, and yet it is not. Certainly it is not an exact science, and speaking to men who are in the habit of dealing with mathematical truths, we must admit much looseness of reasoning, many fashions and fads in medicine. There can be no fashion or no fad about, say, the law of similar triangles—that is a truth forever fixed. Indeed, there can be no fashion or fad about pure mathematics. I will not say so much about statistics. You have probably all heard the definition of statistics, given by one who is supposed to know of what he spoke. He said, "There are three kinds of lies—first lies; second, d——d lies; and third, statistics." Joking apart, statistics are, I believe, notoriously misleading. I said just now that there are fashions and fads in medicine and surgery. There always have been, and I expect always will be. Only a few years ago a woman who had, say, an ingrowing toe-nail was in danger of losing one or both ovaries for the correction of that ingrowing toe-nail. Young men, anxious to be in the front rank, were ready to open abdomens and remove ovaries on the shortest notice. The fad ran its course. Common sense and experience stepped in, and now the number of ovaries that find their way to the waste basket, so to speak, are comparatively few, and I believe that nearly all that go there, go for good and sufficient reasons. Then another fad—the appendicitis fad, with which you are all more or less familiar, came to the front. Young and enterprising surgeons were alert for opportunities to show their skill in diagnosing disease of and in removing appendixes. Many were sacrificed to the new scientific fashion. Fortunately the appendix is only an appendix, and not necessary, so far as is known, to the preservation of the race, so it did not by its removal make so great a hiatus in the subject, so to speak, as did the removal of ovaries. I mention these two among many

others that might be recalled as fads in medicine, to show that with an inexact science the pendulum of fashion may swing too far out for either truth or safety. I believe there is a danger of the pendulum swinging too far out in the matter of contagion in tuberculosis, to the neglect of hereditary predisposition. In correspondence with medical examiners for our company, I catch traces of the thought that is in the air—that tuberculosis is not hereditary. The idea permeates the lay mind, and has taken a considerable hold upon a certain portion of the professional mind as well. The agent is always alive to press the new quasi-scientific fact upon the doctor who examines; and gentlemen, it is surprising the impression which a good, hard-eyed agent can make upon some doctors—examiners—by looking him square in the face and saying slowly, and as one who knows: "But doctor, consumption is not hereditary, you know that, being a doctor, and reading the latest advances in the science of bacteriology." I have, myself, experienced just such nerve from agents. Now, I wish to say advisedly that, Koch, the microscope, asepsis, and all the recent advances in medicine and surgery notwithstanding, we have not a monopoly of the wisdom of the ages in our present time. Men saw, and observed, and reasoned, and thought before the microscope revealed the tubercle bacillus, and they noted that tuberculosis was hereditary. We cannot afford to let go old landmarks, which are the crystallization of centuries of thought and observation by great minds, without taking chances of making great errors.

There is a law in nature, which seems to be universal, viz.: that in the evolution of the species—and by species we mean, for the purpose of this paper, man—the characteristics last to be acquired by the individual, race, or species, are those which are first to be lost in time of stress. This is very evident in nervous diseases. One of the latest acquirements of man, as a species, is higher mentality. This distinguishes him from the lower animals. So an individual whose full development is arrested, is very liable to show a greater or less degree of mental instability. Again, such an individual is liable to show a peculiar susceptibility to the infections which attack human beings. Time will not allow me to discuss this point from the strictly scientific side. The amount of thought which has been given to the question of heredity has been enormous. Some of the best minds that the world has produced have given their best efforts to the elucidation of the subject. In the middle ages, Von Helmont; later, Buffon, Herbert Spencer, Haeckel, Weismann, Nageli and Darwin—names surely to conjure with in science—each worked strenuously to arrive at definite conclusions. Pure mathematics have been invoked as an aid to systematize such conclusions, and I am tempted to give you a

few formule in order to please the purely actuarial part of my audience, but I am pretty sure that the medical portion would not understand them, and I am very sure I could not explain them.

Suffice it to say that the following represents the best and latest findings on the subject, so far as we are to-night concerned —"When through disease, immunity is not attained; but, on the contrary, the parental tissues, as in progressive tuberculosis, become progressively weakened and susceptible to the deleterious action of the toxin, the germinal idioplasm may also be weakened, and an offspring be developed more susceptible to the particular infection." The point here is, that tuberculosis in a human being does not produce immunity. May I explain that by this is meant that an individual recovered from tuberculosis is not only liable to take the disease again (I speak in lay language) but is more liable than even before the first attack. This you all know is not true of many of the infectious diseases —measles, scarlet fever, smallpox, etc., in which the disease does produce immunity.

"An offspring may be developed more susceptible to the particular infection." The infection of which we speak to-night is the one in which we, as insurance men, are more interested than in any other. So to have so clear and definite pronouncement by one of the first of living pathologists, Professor Adami, Montreal, must give us pause when we come to adjudicate individual cases in which contracts are entered into involving the money of policyholders and shareholders alike.

It may be thought that I have taken too much pains to demonstrate what has been universally conceded—that tuberculosis is hereditary—that "the mountain has been in labor and brought forth a mouse." But let me repeat, there is a heresy taking strong hold upon the public, and to a greater or less extent upon a large section of the medical profession, that the hereditary factor in tuberculosis is of very little importance, if it exists at all. It is this swing of the pendulum which I would contradict. This fashion in a medical subject, which from its nature may be appreciated and taken hold of by the public at large, will work incalculable harm as well in social and family relations as in business relations. I have been in the habit of saying to my students at the clinic that what we inherit from our parents is not the germ of the disease, but a peculiar quality of tissue which is a good soil for the growth of the germ. Very many of us—indeed, I believe most of us in this room—have been at one time or another, and some of us many times, infected with tuberculosis, but the soil was not good—in more scientific language, the phagocytes were too strong for the tubercle bacillus, and general disease and infection did not result. It is surprising the number of cases of old cured tuberculosis we find in the post mortem room, the subject

having died of some other disease, and never having suspected that he had suffered from tuberculosis. If you plant a pine tree in a black ash swamp, that pine tree will die. If you plant a black ash on a pine ridge, that tree will die.—Why ?—The soil is not suitable for that kind of tree. If you plant a tubercle bacillus in a soil which is not suitable, it will die, and then the host will escape. If you plant it in favorable soil, inherited from ancestors, or made suitable by want, intemperance, vice, etc., it will live and general infection of the host will result with the development of consumption and the fatal ending.

You are probably all familiar with Maudsley's statement, which is worthy to be engraved in letters of brass—"There is a destiny made for a man by his ancestors, and no one can elude, were he able to attempt it the tyranny of his organization." This is gospel both as to our physical and psychical natures. We should then, both in season and out of season, try to check the growing tendency to belittle the effect of hereditary influence as regards consumption, remembering that the fashion nowadays is to cultivate germs and make them accountable for all the diseases to which flesh is heir.

Our Actuarial Department has recently taken the trouble to gather from three of the largest and most progressive Canadian life companies some information regarding claims on account of tuberculosis. It is extremely interesting and instructive, but as the period of investigation only covers five years, and the total number of deaths only 304, we cannot hope to make so accurate or useful a generalization as has been made by larger companies doing business over much longer periods of time. I have here the results of the investigation, which, while useful upon the printed page, are useless for me to read to you seriatim, so I may give you some conclusions which are based on the figures before me. Remember that the total number of cases of deaths from tuberculosis is 304.

(1) Regarding over-weight and under-weight—in 231 cases, or 76 per cent. of that total number, the weight was under the standard. In 71 cases, or 23 per cent. of that total, the weight was over standard. This is very instructive, and quite tallies with what we have read as to the findings of larger companies —namely, that the personal equation as to under-weight, is of the very highest importance. 76 per cent. of these dying of consumption are under-weight. What about the over-weights? 23 per cent. died of consumption. It shows that so far as consumption is concerned, over-weights are not nearly so dangerous as under-weights. Let us not forget, however, that they make up in many other ways for a high mortality; they depart from the normal, and are, therefore, prone to degeneration.

(2) Of these under-weights 28 cases, or 12 per cent., had a family taint of consumption, while of the over-weights six cases, or 8 per cent., had a family taint. This gives only 34 cases out of a total of 304 in which the record shows a family taint. Here is where statistics are apt to mislead. The time is only five years, and the results as to heredity are practically valueless. The results shown by companies over a long period of time should be, and are, serviceable.

Now, I wish to state that I firmly believe that all statistics of all companies are vitiated in regard to tuberculosis and some other diseases, especially such as are looked upon as a disgrace in the family, by incorrect data, by false premises. Two and two make four, but if it is found that, as a matter of fact, one of these twos is one and three-quarters, then those two twos do not make four. I believe that an enormous amount of misrepresentation goes on daily as to family history when it applies to life insurance. I am led to this belief, not only by the incredibly small number—34—of tainted cases—34—in our 304, but also by all literature of a statistical kind to which I have had access. It does not tally with the ordinary medical experience in either private or hospital practice. In hospital work and in private practice we medical men get truthful answers when we are expected to cure the patient. The suffering one is anxious to have the attending physician very accurately informed as to all points bearing upon the case. I am sure that all the medical men here and elsewhere will bear me out when I say that the rule is (obviously we have no figures) that when we investigate a case of tuberculosis in hospital or private practice, we get a history of a taint in the progenitors. What do our five years' figures show here? Astounding as it may seem, it shows that only one in every nine persons dying of consumption had any family taint at all. Leaving eight out of nine deaths from tuberculosis in persons with no hereditary taint. This is the result from three Canadian companies, making, I am certain, as careful a selection as is possible. This upsets all ideas, both practical and scientific, of heredity, and would thoroughly mislead one who was not forewarned. I quote the figures and make the remarks about our experience as Doctors in practice and our experience as Doctors examining for life insurance, to show that the mental attitude of the average human being changes according as he is a patient, or an applicant for life insurance. In the one case he tells all he knows: in the other his interest, his inclination and human instinct (that of self-preservation) makes him gloze over causes of death or illness, and give anything but consumption as the cause of death. You may say that men are not sufficiently given over to the Father of Lies as to make so great a difference in results. Remember that the

aggregate is made up of units, and that each unit tells his own tale, deterred in some cases from drawing too long a bow, by the fear of his contract being voided, still going far enough to vitiate our premises for the truthful working out of statistics.

Please remember that I do not give the above figures as fairly representing the statistical showing as to taint or non-taint in tuberculosis; but to show how astounding a result is got as to heredity, by taking a comparatively small number of cases, and over a short period of time. For these figures would show that the company runs about eight times as much risk in accepting applicants with no family taint as they do in accepting those with a taint; which is evident foolishness, so that the Vandal who spoke of lies—d—d lies and statistics—was not so far wrong as to certain kinds of statistics. If there be so egregious an error in five years, there will be some error in fifty years, so that no statistics can represent a mathematical truth, but only an approximation to mathematical truth.

The most satisfactory statistical results, to which I have been able to gain access, are a series of tables drawn up by Dr. Marsh, Medical Director of the Mutual Life of New York, and presented to the President of that Company some few years ago. I have them copied here in large figures, which will enable you to grasp the conclusions readily.

The total number of cases used was 22,085, though for purposes of comparison, only 4,700 are used, and the tables are as follows:

SOME RECORD OF FAMILY PHTHISIS.

Age at Insurance and Cause of Death.		Weight.	
		At or above Average.	Below Average.
To 29 years	All causes	88	141
	Consumption	22	69
	Percentage	25.0	48.9
30 to 39 years	All causes	273	308
	Consumption	31	87
	Percentage	11.3	28.2
40 to 49 years	All causes	328	191
	Consumption	22	27
	Percentage	6.7	14.1
50 years and upwards	All causes	288	151
	Consumption	10	11
	Percentage	3.5	7.3

No History of Family Phthisis.

Age at Insurance and Cause of Death.		Weight.	
		At or above Average.	Below Average.
To 29 years	All causes	197	226
	Consumption	35	93
	Percentage	17.8	41.1
30 to 39 years	All causes	412	382
	Consumption	35	73
	Percentage	8.5	19.1
40 to 49 years	All causes	476	271
	Consumption	22	29
	Percentage	4.6	10.7
50 years and upwards	All causes	335	151
	Consumption	9	14
	Percentage	2.7	9.3

Age at Insurance and Cause of Death.		Non-Consumptive Families.	Consumptive Families.
To 29 years	All causes	473	255
	Consumption	135	96
	Percentage	28.5	37.6
30 to 39 years	All causes	903	674
	Consumption	120	136
	Percentage	13.3	20.2
40 to 49 years	All causes	813	596
	Consumption	54	55
	Percentage	6.8	9.2
50 years and upwards	All causes	517	496
	Consumption	24	23
	Percentage	4.6	4.9

I fear I have taken up too much time already, but I would like to give Dr. Marsh's conclusions drawn from these and other tables in his report:

1st. That the history of consumption in any member of the immediate family increases the probability of its appearance in an applicant.

2nd. That consumption in a brother or sister is at least of equal importance as when it has occurred in a parent.

3rd. That persons who are under the standard or average of weight are much more liable to consumption than those above this standard. That the peculiarity of constitution which is indicated by the inability to take and assimilate a proper amount of nutriment indicates a susceptibility to phthisis, or at least is a reasonable suspicion of such predisposition.

4th. That persons who exhibit a robust and well-developed body have little susceptibility to consumption.

5th. That the personal condition of weight and robustness has far more value than the family history in diminishing the liability to consumption; therefore.

6th. The evidence presented by a well-developed body may outweigh the suspicion attached to unfavorable family record.

7th. That these influences of family history and personal weight are of the same grade for every age, and their importance is not lessened by the fact that the individual has reached middle life.

The report shows that a consumptive family record indicates an increased susceptibility of say 30 per cent. This is a fair mean of the results shown by other investigations, which range from 10 per cent. by Louis to 25 per cent. by Walshe and even up to 50 per cent. by others.

It is also to be remembered that in all findings by the Mutual Life the taint was not great, for when the disease included both parents, or 2 or 3 members of the family, the applicant was nearly always excluded, and so such cases do not influence (as they would do anybody) the statistics.

The points which I have been able so imperfectly to bring before your notice are only two. There are one or two others which I would like to mention merely, as very important. I believe they would materially, if the suggestions in them were acted upon, conduce to the lessening of claims from tuberculosis:

1. That your Institute should endeavor to educate the proper authorities to make a law that isolation and disinfection should be carefully carried out in certain forms of tuberculosis at least, as it is in other dangerous infectious diseases, say diphtheria and scarlet fever. I fear it is too early in the civilization of the world to hope that any of us may live to see the day when the law will regulate marriages.

2. That you should suggest to the management of the companies the advisibility of having literature sent to every policyholder, giving in the simplest and plainest terms the danger from contagion, some of the early symptoms, and setting forth the fact that it is in most cases a curable disease in its incipiency. These policyholders would form a centre, each in his own circle, from which would radiate much useful information,

that could not but tend to do good to the community, and both directly and indirectly advantage the life companies.

3. I believe that it would pay life assurance companies many times over, to spend some money in paying a capable man to go through the country, holding institutes, to which should be brought medical examiners for all companies within a certain radius. Such a director of institutes should be able so to educate examiners along life assurance lines, that most profitable results would surely follow in the matter of more careful, honest, and scientific reports to the head offices of all companies.

Any one of the above three points could well form, I believe, the text for a whole paper and evening's discussion in your learned body.

THE COMMUNION CUP.

JOHN HUNTER, M.B., TORONTO.

HISTORICAL.

"And he took a cup and gave thanks, and gave to them, saying: Drink ye all of it; for this is my blood of the covenant, which is shed for many, unto remission of sins." Ever since the night on which these words were uttered there has rested upon the followers of Christ one of the most imperative and sacred obligations known to humanity.

This sublime ordinance with the tragic settings of its inauguration has clustered around it the most hallowed associations of the Christian's life. It would be an inhuman, if not a sacrilegious act, to disturb such associations by the suggestion of any change, were the need for such a change not made imperative by indisputable facts. For ages it has been an almost universal custom throughout many branches of the Christian Church in serving the sacramental wine for a number of members to drink out of a common cup.

Within recent years this method of serving the wine has met with so much opposition that in a large number of churches the common cup has been replaced by the individual cup. This most salutary change has not come unopposed, for "human nature is much the same in any age." Ancient Christians were quite willing to put astronomers to death rather than change their own views even about such material things as the movements of the earth either on its axis or around the sun. Latter-day saints were ready to leave the Church rather than allow the aid of an organ in the song service. The same spirit and the same prejudices are as ready to oppose the introduction of the individual communion cup. These timid conservative souls—ancient and modern—were and are affected by the same delusion, viz., that physical laws in some mysterious way militate against spiritual ones. Why a suggestion that the earth revolved on its axis—why the sweet strains of an organ reverberating within the walls of the sanctuary—or why the sight of a tray bearing to each individual a clean aseptic cup—should throw a devout Christian into a paroxysm of rage and consternation is quite incomprehensible. Words have been multiplied, and doubtless will be again, in adroit efforts to show that physical laws, classical music and sanitary safeguards should always be kept in abeyance lest they might disturb the mould resting on hoary-headed customs.

The writer has neither the time nor inclination to follow such opposition in and out through all the dark chambers in the catacombs of medieval customs, but wishes rather to set this question reverently in the mid-field of life, where it can be examined by all with the clearer discernment—secular and religious—of modern civilization, and analyzed by many with the search-lights and X-rays of science.

Esthetical.

The manner in which the wine is usually served at the communion table is a splendid object lesson on the tyranny of custom and tradition. As man rose in civilization, customs and habits which were tolerated in the more primitive state, became abhorrent. The danger as well as impropriety of using a common drinking cup has long been recognized. Yet ecclesiastical authority has perpetuated a custom in the Church that civilized society would not tolerate elsewhere for a moment, What member of the Church would invite friends to her tea-table, and then ask them to drink out of the same cup?—although the esthetic effects under such circumstances would be vastly less open to criticism. No such practice would be permitted in the family circle. At banquets where each guest is there by special invitation, and is considered to be socially the host's equal, common decorum, still more esthetic tastes, demands the most scrupulous care that there be no mixing of glasses or dishes.

Watch the communion cup as it passes from lip to lip, and it requires no very vivid imagination to sketch a very unesthetic picture. What more unclean thing could float in the wine cup than the hairs of an unkempt moustache? Dentists and specialists tell us of many diseases of the teeth and mouth that could be discussed in medical journals only, where their loathsomeness would be glossed over under technical terms. Is it any wonder, then, that all manner of disagreeable sensations flash before the minds of many communicants as this common cup approaches them, and every imaginable device is resorted to—the communicant passes on the cup untouched, drinks as near the handle as possible, watches where the last lips rested, so as to avoid that spot, immediately uses the handkerchief to clean the lips, whilst the elder, with commendable foresight, picks out pieces of mucus or floating hairs, etc.

How is it possible that such an unesthetic practice can be tolerated? Only two answers seem plausible. It was established at a time when very little was known in regard to the way in which diseases were disseminated. In our time it is perpetuated out of a sort of superstitious reverence for a custom hallowed by sacred associations. Does it not seem absurdly

illogical "to pass a cup from mouth to mouth in a religious ceremony when the same practice was justly condemned in our homes and in other public assemblages?"

Sentimental.

Sentiment is one of the most powerful influences that affect human life. What else can send men so fearlessly to the cannon's mouth as the waving of a flag or the strains of a martial anthem. These appeal to the patriotic sentiment. It was the writer's privilege recently to sit at the communion table in Beecher's tabernacle. He sat down with the lonely feeling that he was a stranger and a foreigner; but when a thousand cups in unison with his own passed to a thousand lips, this feeling fled, and was instantly replaced by a consciousness of being a member of a great brotherhood, owing supreme allegiance to one Lord and Master. There is something in the use of the individual cup—by all at the same moment—that creates a feeling akin to the inspiration that Irish, Scotch and English feel when they all rise and drink to the honor of their patron saint. Perhaps, unfortunately for us Canadians, we cannot fully appreciate this inspiration, for whilst such saints as St. George, St. Andrew and St. Patrick are considered worthy by English, Scotch and Irish, yet such is the intensity of our patriotism, the vastness of our country, with its matchless resources, that we may have to wait for the millennium before we can find a saint worthy to be installed as our patron.

It is this feeling of brotherhood that breaks down the barriers of selfishness, and where should it more abound than amongst the members of Christ's Church? The common cup, on account of its being partaken of by one individual at a time, emphasizes the consciousness of isolation rather than of brotherhood, and yet next to unfaltering faith in the Master comes the grace of brotherly love. Why, then, should we not have a service that lends an esthetic grace to a sublime ordinance and inspires communicants with a deep sense of the brotherhood that exists between Christ and all His followers.

Sanitary

Whatever differences there may be in our interpretation of history, in our esthetic tastes, or sentiments, we come now to discuss a phase of this question, where we can state facts that are just as indisputable as are the proofs of the existence of a Deity or of any other religious dogma. Civilized people believe that many forms of disease can be disseminated. Such diseases may be divided into two great classes.

Acute Infectious Diseases

Very familiar, as well as much-dreaded types of this class, are scarlet fever and diphtheria. If a sufficient quantity of the poison—and it may be so little as to be invisible— reaches the mouth or air passages in a person susceptible to the disease, infection may take place. The specific germs multiply very rapidly and produce poisonous products that may be widely disseminated by the blood. The quantity and virulence of these poisons are often sufficient to overcome both the resisting power of the body and that of medical treatment, and thus lead on to a fatal result.

There is no difference of opinion amongst intelligent people in regard to the fact that these diseases are infectious and that there should be strict sanitary regulations governing them. A few weeks ago there was a meeting of sanitary experts in the city to discuss questions pertaining to school hygiene. The common drinking cup at the schools was shown to be a source of extreme danger and the most probable cause of recent epidemics of diphtheria. Suggestions were made as to the best methods of averting this terrible danger.

In the case of some of these acute infectious diseases, such, for instance, as scarlet fever, one attack may produce a life-long immunity. With adults unprotected in this way, a few infected persons partaking of the common cup, would be liable to cause an epidemic after each communion service. This statement can be verified in regard to diphtheria, a disease from which one attack does not produce immunity. One of the chief reasons why it is so much more prevalent amongst children is owing to the fact that they use the same cup, eat of the same apple, pass chewing gum from one to another, etc., etc. Again, it is not unusual for the poison of diphtheria to remain in the nose or throat for weeks after the patient is able to be around, and thus infection might be very readily conveyed to the common cup. Dr. Forbes, of Rochester, found a great number of these germs in the wipings from a cup's rim. A fatal epidemic of this disease in San Jose, Cal., has been traced to a common communion cup, contaminated by a man sick with the malady in its early stage.

This phase of the subject could be discussed indefinitely, but enough has been said to prove beyond any possibility of successful contradiction, that acute infectious diseases can be acquired from the use of a common cup.

Chronic Infectious Diseases.

It is quite a common sight, and certainly a most pathetic one, to see, on a Sabbath morning, so many sick ones brought

out by their friends to attend the communion service. Many of these never see the church between times—in fact, many are never able to return. A very large percentage of such cases are consumptives. There are other chronic infectious diseases just as dangerous—and far more loathsome—than tuberculosis—the medical term for consumption—but these could be discussed only in medical journals. Tuberculosis is an infectious disease, always acquired from a specific germ. Were it possible to completely exterminate these germs we would be entirely free from tuberculosis. These germs are disseminated most readily by the expectorations of tuberculous people, and under certain conditions may be preserved for a long time. They may be located in the body for months, perhaps years, or even a lifetime without producing any serious results. Only too often, however, their entrance is followed by disastrous effects. The expectorations, as has already been pointed out, are the chief source of infection, and it can readily be understood why a common drinking cup should be such a source of danger. Five samples were examined from a communion cup, in one of our laboratories, and in two of them tuberculous germs were found.

Volumes could be written on this subject, but enough has been said to prove conclusively these two facts—1st, that these chronic diseases are infectious; 2nd, that they can be widely disseminated by the common communion cup. It is simply absurd to say, "Well I cannot believe this because I have not heard of any cases of consumption being contracted in this way." In a disease that begins so insidiously it is simply impossible to say when it was acquired, but this does not militate a particle against the fact that the disease does originate from an infected source, and that the common communion cup can very readily be contaminated with infected sputum. The individual cup completely averts such a danger, as it can be effectively sterilized before and after each service.

In conclusion, what authority has the Church to perpetuate a custom that not only gives a rude shock to every sense of cleanliness and propriety, but also criminally violates sanitary laws and regulations specially designed to protect human life? Better far to grasp the spirit of the poet, who sings:

"My God, and is Thy table spread?
And does Thy cup with love o'erflow?
Thither be all Thy children led,
And let them all its sweetness know."

Selected Article.

THE SOLUBLE FERMENTS OF COW'S MILK.

By JOSEPH LESPERANCE, M.D. (Paris), Montreal, Canada.

It is a well-known fact that milk is in itself a complete food, since it contains the three alimentary elements by which all life is sustained, namely, the albuminoids, the fats and the sugars. But, although human life may be indefinitely maintained by the exclusive use of milk, the seemingly paradoxical fact has been established that an artificial mixture of albumins, fats and sugars, although in the same proportions as when contained in natural milk, will not sustain life beyond a limited period. The following experiment made by Lunin demonstrates this interesting fact.

Mice, as well as men, can live indefinitely on natural milk as a sole diet. But when they are fed on artificial milk containing all the chemical constituents of an excellent milk, they die in from twenty to thirty days. In this experiment Lunin prepared his milk in the following manner: The milk was diluted with water, and then precipitated by acetic acid. The flaky precipitate was then washed with acidulated water, leaving it a mixture solely of casein and fat. To this quanity of albuminoid and fatty matter, he added cane-sugar in the proper physiological proportion to represent the carbohydrates. Finally he added the salts that are contained in the natural milk, in the exact quantities in which they are found in that substance. Theoretically this artificial milk constituted a perfect food, since it contained the three principal groups as well as the salts. Nevertheless, the mice on which the experiments were made did not live, although they relished the diet and ate plentifully of the food.

Lunin was studying the rôle played by the mineral salts in nutrition, and at the time when he announced the results of his experience the scientific world was considerably surprised.

It is now well understood that the factor which was lacking in Lunin's artificial milk, that which was necessary in order to make this product capable of sustaining indefinitely the life of his mice, was that chemically intangible constituent, the active living force, in fact the enzymes or unorganized soluble ferments that were destroyed by his method of preparing and treating the milk. This fact explains why sterilized milk and other

sterilized foods have not fulfilled the general expectations of the scientific world. Received at first with enthusiasm by the medical profession, it was gradually shown in the course of time, that they did not constitute an ideal method of feeding. Many medical men, recognizing the lack of result without knowing the real cause of failure, returned to good natural milk, either simply diluted with water or not. Careful observation showed that milks that had not been heated beyond a natural temperature were more easily digested, and gave greater vitality to the system. It was observed that sterilized milks produced in children soft muscles, a generally irregular development, and a weakened resistance to infectious diseases. Some men even stated that they were the indirect cause of infantile scurvy. And these unsatisfactory results were observed even when the very best methods of blending were being used, and the milk had been modified so as to make it, from a chemical standpoint, not only merely resemble mother's milk, but actually almost identical with it.

These facts were verified, but without any reasonable explanation of the cause. However, the work and thorough investigation to which milk has been subjected within the last few years, have thrown an entirely new light on the subject. The constituents which are lacking in sterilized milk, or, more properly speaking, are destroyed when the temperature of the milk is raised to 176° Fahrenheit, are the enzymes, those mysterious ferments which govern the equilibrium of the protoplasm. Not only in the animal kingdom, but in the vegetable kingdom as well, every vital phenomenon seems to be dependent on these ferments. The grain of wheat, planted in the soil, owes its development and growth solely to these special ferments. Under the influence of soluble substances secreted by microbes in the bosom of the earth, the grain of wheat emerges from its lethargic condition and becomes a living organism, capable of growth and reproduction. It has been shown that absolutely sterilized earth is useless for the growth of seeds, and that these do not come to maturity in such soil. (Ref. Nobbe, Dresden.)

The same thing applies to the animal kingdom. Animals kept in an aseptic atmosphere and fed on sterilized foods cannot live. The quantity and proportion of albumen, of carbohydrates and of fats may be perfect, but that particular force which separates and disintegrates them into their ultimate terms of absorption no longer exists, and these food substances become inert. According to Kejanitzin, the disastrous effect of sterilized air breathed, continues even after the animals have again been placed in a normal atmosphere. This author explains, that in breathing ordinary air the microbes inhaled

are absorbed by the leucocytes, which separate the ferments which these microbes contain and spread them throughout the organism, where they regulate oxidation and prevent the accumulation of leucomains and other toxic principles.

It is a path abounding in beautiful discoveries that science has opened. It is found that the malignant ferments, producers of illness and death, are only an accident in nature. If there exists those that are responsible for the shortening of some lives, on the other hand their very kin are they that since the creation of the universe have perpetuated species, and finally the evolution of the higher organisms is corollary to that of the infinitely small. Although there are injurious germs whose secretions disturb the vital harmony and cause a disturbance of the physiological phenomena, yet, by way of retaliation or compensation, there are a much greater number of those whose secretions are of direct benefit. It is true that, as yet, we know but a small proportion of these, but the list is growing and continues to grow as time passes. Let us salute, *en passant*, the noble germs, creators of fine wines, of good ciders, of fragrant vinegars, and of savory beers.

If we have entered somewhat fully into the above considerations, it is because the ferments that are found in milk originate both in the organic cell and in the bacterial cell; the former being necessarily in the milk because they are contained in the organism and in the gland cells which give rise to the milk; the latter being accidental, but at the same time always found in the milk, since they are secretions of the bacteria which exists everywhere and consequently gain entrance into the milk, many of them even before it leaves the galactiferous ducts. These bacterial ferments were thoroughly studied long before the cellular ferments, and since the observations and work of Duclaux are known intimately. They are for us less interesting than the others, and to them, the cellular ferments, we would more particularly devote our attention.

The clear ideas which we at present possess, regarding the soluble ferments of milk, have taken a long time to come to light. While the first work on the digestive ferments of the human alimentary canal dates back some fifty years, only five years have elapsed since any serious attention has been given to those of milk. After having discovered ptyalin in the saliva, pepsin in the gastric juice, and the tryptic ferments in that of the pancreas, science rested. Bacteriology acquired a tremendous impetus from the ideas of Pasteur; a keen interest was aroused that engrossed all thinking minds. But by a return to the original ideas, bacteriology, in discovering the secretions of the microbes, brought these same thinkers back to the study of the secretions of the organic cells, and demonstrated that

the two are identical, and that there is no biological difference between the constituent cells of our organism, and those minute cellular individuals, the microbes.

Babcock and Russell of Wisconsin were, so far as we can learn, the first to demonstrate the presence of soluble ferments in milk.

In the earlier days the various phenomena that take place in milk were explained as being solely chemical—the reaction of one body on another. Then, in the time of Pasteur, the facts became a little better known, and all the transformations of milk were ascribed to the action of bacteria. Lloyd and Freudenreich made known the considerable part played by bacteria in the maturing of Cheddar and Emmenthaler cheeses.

Babcock and Russell, struck by the fact that all the changes taking place in milk could not be explained by the activity of bacteria alone, undertook a long series of experiments in order to elucidate the apparent difficulty. They experimented partly with natural milk and partly with milk that had been worked by cheese-makers. To samples of fresh milk they added in some cases chloroform, in others ether, both of them substances which arrest bacterial growth. They found that coagulation of the milk set in within a few days without any corresponding increase of acidity. In these experiments the anæsthetic would have prevented coagulation if that phenomenon were due entirely to bacterial life.

Then, as Conn had announced that saprophytes possessed the power of secreting an enzyme analogous to rennet, and capable of coagulating milk, and as Duclaux, in a lengthy communication, had brought to light the important rôle played by the saprophytes in the phenomena of the maturing of cheeses, Babcock and Russell determined to investigate the question as to whether the coagulation of the milk in spite of the use of the anæsthetics had been caused by bacteria. They took every precaution, surrounding themselves with every safeguard in order to prevent the contamination of the milk by saprophytes. The udder of the cow was carefully sterilized, the first milk was thrown away, and then the balance was milked direct into bottles containing an excess of an antiseptic preparation. By this process the bacteria with spores which produce the coagulating ferments were excluded, and if by chance any of them, coming from the lactiferous ducts, reached the milk, they were immediately paralyzed. Under these conditions which would eliminate all bacterial activity, the same phenomena of coagulation and transformation of the caseine took place as before, and in the same time. These experiments were repeated with all antiseptics known to arrest microbal reproduction, such as fluoride of sodium, salicylic acid, etc., and

the results were always the same. Moreover, in proportion to the age of the various samples of ascepticized milk, these exhibited a gradual increase in the percentage of albumoses, formed at the expense of the caseine. For example, in milk twelve days old, the proportion of the products of this digestion was 30 per cent., while in the same milk, two hundred and forty days old, the proportion was 63 per cent. Babcock and Russell then arrived at the conclusion that besides the organized ferments, there are in milk other ferments which are inherent in the milk itself. In pursuing their investigations further, they found these ferments in the milk of all the mammifers that they studied (ass, mare, goat, sheep, sow, buffalo, and woman). In the cow's milk it is particularly abundant and more easy to isolate.

To this ferment they gave the name of Galactase, and classified it in the same family as Trypsin, the pancreatic enzyme.

This view of the matter was confirmed in the very same year. Bertrand and Bourquelot, without knowing anything of the work of Babcock and Russell, demonstrated by other processes the presence in milk of oxidizing ferments. As long ago as 1881, Arnold had found that fresh cow's milk became blue on contact with tincture of guaiac, and that this reaction is no longer produced if the milk is heated to a temperature of 80°C. In 1890 Kowalesky established undeniably that the same reaction takes place in milk when mixed with old turpentine. But at that time this reaction was attributed to the presence of ozone. Later it was recognized that free ozone cannot exist in the system, and Bertrand and Bourquelot demonstrated that the reaction of milk toward oxidizing agents is due to the presence of a ferment. Of itself it is powerless to oxidize oxidizable substances without the assistance of an intermediary agent highly oxygenated, such as the tincture of guaiacum, old turpentine or oxygenated water. But, when these agents yield their oxygen to this ferment, the latter is able to hold it, and in consequence to oxidize any oxidizable substance with which it comes into contact. For example, if some drops of tincture of guaiac are added to fresh milk, this does not change color. But if at the same time some drops of oxygenated water are poured into the milk, a blue color begins to show itself at once. The ferment has absorbed a portion of the oxygen, and coming into contact with the guaiac has oxidized the latter. Thus this ferment belongs to the family of anaeroxydases. At this same time Dupouy, and in the following year (1898) W. Raudnitz, studied this oxydase and found that it is present in the milk of the goat, the cow, and the ewe, and that it is absent, or that its action is very weak in the milk of the ass, the mare, the dog, and in human milk. Marfan and

Gillet have also studied this ferment, and confirm its presence in the milk of the cow.

In 1901 Spolverini took up this line of research and recognized in cow's milk the presence of pepsin and trypsin. Working on milk aseptically treated, and in which perfect asepsis was maintained by thymol, he placed in a drying-stove, at 104° F., various quantities of milk, some acidified for the research for pepsin, other alkalized for the research of trypsin. After a certain time he determined the quantity of soluble albumin in it by the biuret reaction. A boiled sample served as a means of verification. By proceeding in this manner, Spolverini found that the pepsin and trypsin were to be met with in all the milks, but were most abundant in cow's milk. The proportion diminishes in the milk of the dog, the goat, human milk, and that of the ass.

Besides these ferments, of which we have already spoken, still another is to be found, which Spolverini identifies with the glycolytic ferment of the blood. If the sugar contained in a given quantity of fresh milk is determined, and the latter is placed in a drying-stove at a temperature of from 38° to 41°C., and the quantity of sugar is again determined after a lapse of twenty-four hours, it will be found that the quantity of sugar has considerably diminished. A portion has been destroyed. This is by the action of a glycolytic ferment. This ferment shows itself fairly active in cow's milk, but slightly less so in other milks. Moreover, in 1901, Luzzati, Boilchini, and Marfan, and in 1902, Gillet, as well as Spolverini, separated still another ferment that belongs to the family of hydrolytic ferments. Under the influence of this ferment monobutyrin resolves itself into butyric acid and glycerin. These authors operated by distilling a mixture of milk and monobutyrin, and in then determining the acidity of the distilled products. They encountered this reaction of splitting up monobutyrin in the milks of the woman, dog, cow, goat and ass, stronger in the former, and less energetic in the latter. They have agreed upon giving this ferment the name of lipase, a name which Bourquelot had given to a ferment of the same nature, which Hanriot was the first to discover in the blood.

Summing up the various researches and discoveries made in connection with cow's milk, we find then, that this milk contains numerous ferments. We have determined definitely the presence of trypsin and of pepsin, of the lipasic and oxidizing ferments, and of a glycolytic ferment. There is, moreover, reason to expect further discoveries in this direction, and this is not improbable when the extremely complex nature of milk is taken into consideration.

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Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, H. J. HAMILTON, C. J. COPP AND F. A. CLARKSON.

A Method of Dispensing with Rubber Gloves.

Dr. Jno. B. Murphy reports in the *Journal of the American Medical Association* a new method of covering the hands and arms with a solution of rubber. It may also be applied to the surface about to be operated on. Pure gutta-percha chips are dissolved in sterile benzine or acetone. The hands are sterilized as usual, thoroughly dried and then covered with this solution, which dries without rubbing. The result is a thin coating of a material insoluble and impervious. It is easily removed with benzine. F. A. C.

Treatment of Lobar Pneumonia.

Prof. W. Gilman Thompson, of Cornell University (*Jour. Amer. Med. Assoc.*), points out that the care of the heart is the most important purpose of our treatment of this self-limited disease. A common mistake is to over-stimulate a heart which if left to itself would act well enough. Frequent changes in the form as well as the quantity of the drugs employed are of great advantage. He has found that the cold tub bath is very unfavorable in pneumouia, and has abandoned it entirely. Many patients are dosed with "specifics" and with expectorants to their own detriment. In those exceptional cases where the bronchial secretion is abundant, atropine sulphate (gr. 1/200) is indicated. Of the "aborted" pneumonia, so often spoken of by a certain class of practitioners, Dr. Thompson knows nothing. "I have never been convinced," he says, "that a genuine pneumococcus lobar pneumonia, with all its definite characteristics, can be systematically cut short in full career by any system of treatment at present at our command. There are plenty of mild cases to be seen to-day of influenzal type, in which there is a suspicious patch of apparent consolidation, which terminate in resolutiou of their own accord in two or three days." Usually little attention is given to the gastro-intestinal tract, whereas tympanites and indigestion are just as urgent symptoms in this disease as in typhoid. Topical applications of all kinds are useless, except for the relief of pain. Above all, proper intervals of rest are absolutely necessary, in which the patient is free from incessant efforts at medication.

F. A. C.

Treatment of Serous Effusions.

Barr, in the *British Medical Journal*, gives details of a new method of treating pleurisy, pericarditis and ascites, by withdrawing a portion of the fluid and injecting adrenalin solution. The amount of the suprarenal extract used depended upon the serous cavity involved. In a case of pleurisy he injected one drachm, in ascites two or three drachms, but in the pericardium of a boy he found 40 minims produce unpleasant symptoms. To prevent adhesions he introduces sterilized air after the adrenalin. The clinical instances which he cites would seem to show that this method gives very satisfactory results in those cases in which the fluid continues to accumulate in spite of repeated aspirations. F. A. C.

Aerophagy.

This is a very common accompaniment of gastro-intestinal neurosis, and is usually involuntary. The patient suffering from nervous dyspepsia has a fulness of the abdomen, which he attributes to gas. In his efforts to relieve himself by belching, he unconsciously swallows air till the stomach is distended, and then the supposed flatus is eructated. Sometimes, however, the gas passes through the pylorus into the bowel—a common condition in hysteria. The diagnosis is usually easy. When the eructations are too numerous to be explained by gastro-intestinal fermentation, and when the patient can belch at any time he is asked, air-swallowing is the cause of the trouble. The treatment is that of any other gastric neurosis—isolation, rest, and a liberal diet, together with bromides, valerian or chloroform water.—*Mathieu, Gazette des Hopitaux.* F. A. C.

Present-day Treatment in Pulmonary Tuberculosis.

Isolation, plenty of sun-light and an abundance of fresh air constitute the sum of present-day treatment in pulmonary tuberculosis. With these freely granted to a patient, forced feeding, dieting and drugs according to indications will be of some avail. Without the three cardinal requirements the others may as well be totally banished so far as any real or lasting good is concerned.

And tuberculosis will be very loathe to occur at all if a degree of isolation, with free sun-light and abundant fresh air, can be secured.

It is this view that supports quite all reform movements in the better housing of factory employes, school children, amusement-seekers and travelers, in fact all who voluntarily or per force are required to come together under more or less common artificial conditions.

Sanitoria for consumptives may be advantageous, but we are inclined to believe tent-life or residence in half-open cottages better.

A change of climate becomes significantly favorable because one is either forced or encouraged to an out-of-door life; and because such change is usually to a "land of sunshine."

Isolation, air, sunshine, together with a fair amount of exercise and wholesome food, should call a halt upon the forces of the "great white plague."—*Clinical Review.*

Complications of Diphtheria.

Boutin, *Progressive Medicine* (March, 1904), has made a careful study of the gastro-intestinal disturbances which frequently precede the sudden death occurring during the convalescence from diphtheria. For five or six days after the onset of the angina, but often much later and in the midst of what appears to be a satisfactory convalescence, the patient develops anorexia, followed by vomiting, violent abdominal pain and either constipation or diarrhea. Soon the feeble and rapid pulse is followed by collapse and death.

The anorexia, which is especially profound, is a valuable sign of threatening danger, and should excite anxiety. Vomiting is also an important sign, and may be persistent. In general the danger is proportionate to the vomiting.

The same article also offers an explanation for the increased frequency of sudden death during convalescence, as well as the increase of post-diphtheritic paralysis since the general use of antitoxin. Formerly most of the severe cases died; now these lives are spared for the time necessary for these complications to manifest themselves.

F. A. C.

LARYNGOLOGY AND RHINOLOGY.

IN CHARGE OF J. PRICE-BROWN.

Bleeding Polypus of the Nose.

(St. Clair Thompson, *Jour. Lar., Rhin. and Otol.*, April, 1904.) This is the report of two cases of this rare disease. The growths were round and red, and attached in each case to the septum. The larger one was of the size of a cherry stone. Each was removed by snare, and the base seared with the electro-cautery. There was no return after an interval of three months. Microscopical examination showed the growths to be fibro-angiomata.

Nasal Polypi in a Boy aged Seven Years.

(Stuart Low, *Jour. Lar., Rhin. and Otol.*, April, 1904.) This case is reported on account of the exceeding rarity of the occurrence of nasal polypi in so young a subject. Professor Hajek, in a very extensive practice, had never seen the disease at so early an age. (*The abstractor, several years ago, reported a case as occurring in a girl at the age of five years. The polypi were numerous and large. The mother stated at the time that the child had been treated by another rhinologist for several months for the same disease when only two-and-a-half years old.*)

Treatment of Ozena by Collargol.

(Roques, *Archives Internationales de Laryngologie*, Feb., 1904.) The author reports a number of cases in which the result of treatment with collargol was very gratifying. The method was as follows: The nasal mucosa is first cleansed from all crusts and discharge; after drying, a powder composed of collargol and sugar of milk in the proportion of one in thirty is insufflated twice daily. As the condition improves the proportion of collargol and the frequency of insufflation are lessened. The powder acts better than solutions or ointments, and a cure should take place in four or five days. The powder should be insufflated along the floor of the inferior meatus, in order to reach the posterior wall of the pharynx. A little of the powder should be directed toward the septum and superior turbinate.

The Cure of Tic-Douloureux.

(De Champeaux, *Archives Internationales de Laryngologie*, Aug., 1903.) The author reports the case of a woman who had suffered for several years from facial neuralgia, and who had treated for it unsuccessfully in many ways. From the expression of her face and the presence of crusts in the nose, he suspected the presence of adenoids. Their removal cured the rhinitis and also the tic-douloureux.

Epidemic Sore Throat from Suppurative Mammitis in Cows.

(French, *British Medical Journal*, April 9, 1904.) This is the third report of epidemic sore throat, having as origin suppurative mammatis in cows, which has appeared in the *British Medical Journal* during the last few months. There is great similarity in the three reports, that of French being very comprehensive. The cause is the consumption of curdled milk, sometimes containing pus, which has been drawn from the udders of cows suffering from mammitis.

The disease in the human subject is ushered in by chilliness, malaise and sore throat about twenty-four hours after infection. The appearance is that of lacunar tonsillitis or quinsy, but not of diphtheria. The glands of the neck enlarge, harden and become matted together. In rare instances suppuration occurs. Neuralgia is nearly always present. The temperature rose to 103, and in one instance to 107. Among complications may be mentioned swelling of the limbs and joints, resembling rheumatism, the presence of a rash in some cases, and occasionally erysipelas of the head and face. Fatal terminations rare. Recrudescence of symptoms a common factor.

Treatment: All ordinary treatment for throat disease unavailing; but injections of antistreptococcus serum, immediately followed by good results. In twelve hours temperature would become normal, followed by rapid recovery.

Bacterial examination revealed the presence of numerous streptococci, and although there were some bacilli present, cultures only produced a repetition of the same germ.

Conclusions: The disease is an erysipelatous infection of the throat caused by these micro-organisms. They eventually find their way into the blood, causing general septic infection. They also attack the neurilemma of nerves producing the neuralgia.

Cheesy Empyema of the Nasal Accessory Sinuses.

(Steida, *Arch. of Otol*, vol. xxxii., No. 5.) Three cases of rhinitis caseosa are described, leading to disfigurement and the formation of fistulas. They required external operation, and recovered. Internal operation, if practicable, is in the first instance to be preferred.

Sessile Fibromata at Anterior Extremity of Left Vocal Cord, Partially Removed by Forceps and Completely Extirpated by Galvano-Cautery.

(Dundas Grant, *Jour. Lar., Rhin. and Otol.*, April, 1904.) Patient, a widow, aged 51, had suffered from aphonia for three years. The anterior commissure was occupied by pink sessile growths situated on the left vocal cord. In July, 1903, these were partially removed by forceps. The voice was somewhat improved; but it was found impossible to remove the growths completely by this means. In October a finely pointed cautery was applied lightly to one of the growths. This was repeated at intervals of two weeks to each nodule successively. By the end of December all had been cauterised, the growths had disappeared, and the voice was restored. Although there was still some congestion, the vocal cords were normal in outline.

A Study of the Condition of the Upper Air-Passages Before and After Intubation of the Larynx.

(Louis Fischer, *Archives of Pediatrics*, Feb., 1904.) This paper is based upon two series of cases, one group being intubated in hospital practice, the other in private practice. The former contributed ten cases, the latter twenty-six cases. All were diphtheritic. Antitoxin was used in all; and rubber tubes instead of metal were used in every instance. Most of the children were rachitic. And all had abnormal throats; enlarged tonsils, adenoids, or chronic rhino-pharyngitis being invariably present. In his conclusions Fischer emphasizes two important points: 1. The tolerance of the larnyx to a tube for many weeks: one case wore a tube for twenty-five days, another for twenty-six days. 2. That a proper fitting tube of rubber produces no chronic inflammation in the larnyx. Finally, each of the cases was questioned carefully as to the production of catarrh by the wearing of the tube, and in every instance the answer was negative.

OPHTHALMOLOGY AND OTOLOGY.

IN CHARGE OF J. T. DUNCAN, M.B., M.D., C.M.

Episcleritis.

In the *St. Paul Medical Journal* is a good epitome of an article on the above subject by Don. M. Campbell.

1. *Episcleritis* signifies an inflammation above the sclera and presumably below the conjunctiva that is involving the episcleral tissue, which is a thin layer of reticular tissue joining the sclera to the conjunctiva.

2. *Scleritis.*—Which is designed to cover those cases of inflammation of the whole or more frequently sections of the sclerotic coat.

Either of these may be acute or chronic.

Signs and Symptoms of Acute Episcleritis.—Lachrymation, feeling of discomfort or sensation of foreign body in the eye. Moderate tenderness to pressure; and what is characteristic of the condition, a circumscribed red elevation over the affected area, carrying over it the uninflamed conjunctiva. In some cases this elevation is as large as a quarter in size of the eyeball, and in appearance is suggestive of a sarcoma of the sclerotic.

Signs and Symptoms of Acute Scleritis. Lachrymation and Photophobia.—There is no circumscribed swelling over the area of inflammation, but a peculiar bluish purple, frequently

sharply circumscribed area of redness which is deep-seated in the sclerotic coat, the conjunctiva passing undisturbed over the inflamed area. It is tender to the touch and frequently the pain is quite severe. Several areas in the sclerotic may simultaneously be involved or the whole sclerotic may be the seat of the inflammatory action.

(Note that in episcleritis the inflamed part is elevated; in scleritis it is not.—D.)

Treatment.—The local treatment should consist of such measures as are best calculated to combat inflammatory action. Rest, chiefly physiologic, by means of non-use of eyes, protection from light and paralyzing the ciliary muscle by atropine.

In some cases associated with high tension eserine may be indicated.

Hot antiseptic eyebaths: Local blood letting, by leeches, artificial or otherwise. In order to secure the easiest use of the eye all refractive errors should be corrected, as also should all imbalances of the muscles. Disinfection of the conjunctival sac can be secured by argyrol, protargol or boric acid. Adrenalin, while it has a wonderful influence in temporarily controlling congestion, in the author's experience is not curative, and may be in some cases very undesirable, excepting, perhaps, for very brief periods of time; the reactionary congestion being very undesirable.

The constitutional treatment must aim at, above all things, a correct mode of life as to exercise, diet and the proper functional activity of the skin, bowels and kidneys.

It is impossible to lay down a general plan of diet for these cases. The dietary that the individual's digestive organs can properly take care of is the best. In any individual case this can only be carried out by careful study. In the way of internal medication salicylate of soda is the drug which gives the best results, but in order to secure the beneficial effect of the drug it must be fresh and pure and given in solution, and because it is so very quickly eliminated the dose must be frequently repeated.

The Treatment of Dacryocystitis (Inflammation of the Lachrymal Sac) by Extirpation of the Sac.

Etienne Rollet (*The Ophthalmoscope*) advises the removal of the sac: (1) In simple dacryocystitis, when it is old and rebellious, when the introduction of probes is very painful or impossible, and when a speedy cure must be effected; (2) in cases of lacrimal tumor with mucous or purulent contents; (3) chronic lacrimal fistula; (4) tuberculous dacryocystitis. In phlegmonous dacryocystitis the operation is least indicated, and advisable only after the inflammation has subsided.

The author has removed fifty sacs. Twenty-seven cases were watched for periods ranging from six months to seven years. Eighty-nine per cent. were cured. In 67 per cent. lacrimation did not exist; in 22 per cent. it was present only when the patient was exposed to the wind or cold; in 11 per cent. it persisted.

Three theories have been advanced to account for the good results in this class of cases:

"(1) That the lacrimo-nasal canal becomes formed anew, a view that I have opposed on both clinical and experimental grounds;

"(2) That the watering of the eye disappears with the cause of the hypersecretion, namely, the lacrimal inflammation. This theory explains the disappearance of the lacrimation often witnessed immediately after the removal of the sac, or in other words, after suppression of the suppuration causing the lacrimal irritation;

"(3) That the operation is followed by an atrophy of the lacrimal gland. This theory explains those cases where the watering of the eye persists for some little time after ablation of the sac. An experiment performed by me in 1896 upon a dog, showed that an atrophy, macroscopical and microscopical, of the lacrimal glands followed five months after extirpation of the animal's lacrimal sac. Tscherno-Schwartz in 1901 reached the same results after experiments upon rabbits."—*Am. Jour. of Ophth.*

Sympathetic Ophthalmia Followed by Loss of Hearing.

Dr. Albert Blatscheck relates the history of a child, aged twelve years, who suffered the loss of the left eye from an injury with a gun-cap. Sympathetic ophthalmia of the other eye followed. In the course of two months the right eye was completely destroyed, and enucleation of both bulbi followed. Soon after the enucleation of the injured eye, when the sympathizing eye was at its worst, the hearing became affected. Fever, delirium, and hyperesthesia of the ears followed, and gradually complete deafness ensued. The examination showed deafness of central origin: No other nerves were affected. Dr. M. Sachs, of Vienna, reported a similar case, following double cataract extraction. Deafness came on, but disappeared in four or five weeks. Enucleation of the eye was followed by improvement in the hearing. The author concludes that the neuritis and perineuritis traveled along the optic tracts to the external geniculate bodies, thence to the internal geniculate bodies, and thence to the acoustic nerves.—*Zeit. fuer Augen.*

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, K. C. McILWRAITH, FRED. FENTON AND HELEN MacMURCHY.

A Sign of Pregnancy.

Dr. H. L. E. Johnson announces in the *Journal of the American Medical Association* a new sign of pregnancy, which he describes as follows: "This sign is observed as early as the fourth week, or possibly earlier, and consists of an intermittent softening and hardening of the vaginal portion of the cervix uteri with, in many cases, a change of color from a pale violet to the normal pink hue, or the reverse. These changes in consistence and color are rhythmic, more or less. The alternate softening and hardening is easily detected by digital touch, while changes in color may be seen through a speculum." He has observed it a very large number of times, and has found it invariably present in cases of pregnancy.

Purgative for Pregnant Women.

Lutaud, according to *Journal de médecine interne*, for January 15th, gives:

℞ Castor oil.....30 grammes (1 ounce)
Syrup of rhubarb .....20 grammes ($\frac{2}{3}$ ounce)
Alcohol .....15 grammes ($\frac{1}{2}$ ounce)
Peppermint oil.....2 grammes (30 minims)

M. For one dose.

Plastic Surgery in a Maternity Hospital.

Dr. Barton Cooke Hirst, of Philadelphia, contributes an article to the current number of *The Journal of the American Medical Association* on "Plastic Surgery in the University Maternity for the Year 1903." For several years the doctor, in common with most enlightened physicians, has repaired all the injuries te the parturient canal during the puerperium. Operation is, of course, under anesthesia. It is found that an operation on the cervix before the fifth day is often followed by infection of the endometrium. At the end of a week this is not the case. During 1903 the cervix has been repaired in fifty-three cases, and the anterior vaginal wall in forty-two cases.

Tubal Pregnancy.

There are not very many cases of extra-uterine gestation where the duration of pregnancy could be accurately determined, and this adds to the interest of a case reported by Dr. Duncan, of the Middlesex Hospital, before the British Gynecological

Society at its meeting last month. Dr. Duncan's patient was a healthy looking, but pale, woman, of a very active temperament. Pregnancy was not suspected. On account of endometritis it was found necessary to curette the uterus on November 16th, 1903, and the patient did well till November 25th, having had neither pain nor rise of temperature up to that date. On that date, at 7 p.m., the attending physician received word from the nurse that the patient was suffering from "pain in the chest and indigestion." Going at once to the patient he found her collapsed, pulseless, semi-conscious, and tossing about in the bed with gasping respiration. Dr. Duncan was sent for, and with the assistance of two other medical men, performed abdominal section, preceded by saline transfusion. The abdominal cavity was full of liquid blood with some clots, the right uterine appendage was normal, but the left uterine appendage presented a small round perforation near the uterine end. The broad ligament was transfixed and tied in the usual way and the tube and ovary removed. The patient, though in a most dangerous condition during the operation, and for some hours afterwards, made a satisfactory recovery. Dr. Duncan was able to ascertain that conception had occurred November 6th. It will thus be seen that rupture of the gestation-sac occurred nineteen days after conception, and ten days after the curettement. There is in the literature only one other case in which rupture took place so early, viz., Dr. Rumley Dawson's case, reported to the Obstetrical Society of London in 1893. In this case rupture occurred on the fifteenth day.

Editorials.

EDUCATIONAL OVER-STRAIN.

June and July are the months when most of the examinations in our secondary and primary schools are held. There are too many of them, and the pressure on the children, younger or older, is too heavy. In the eye of the law and to the *mens medica*, the age of adult life is about twenty-one years. But we heard a clergyman, not long ago, in the pulpit, refer to "young men of fourteen." That is it. Hurry everything on, and hurry everything through. Try to do too much and do nothing well. Expect children of fourteen to perform intellectual work that the brain and the body of a child of fourteen are not intended for, and that nature has not prepared for at that time. Whose fault is this? We have no hesitation in saying that it is the parents' fault. We know that the Education Department is partly to blame, and that inspectors, principals and teachers are partly to blame; but the real trouble is with the parents, and with the system that endeavors to make all children, clever or stupid, nervous or phlegmatic, romps or prigs, as much alike as the peas in a pod. It cannot be done, of course, but harm can be done by the attempt.

Said a teacher the other day, "I could do nothing with our new grade time-table. Fifteen minutes for this, and ten minutes for that, and so many new subjects. And I just tore it up and put it in the waste-basket, and now if I want an hour for drawing I take it and try to teach them something when I am at it." But such courage is not common.

Hear also a wise man who is superintendent of schools in a large American city: "It is not mental activity that hurts. It is the foul air, the bad seat, the unequal heating of the room, the poor lighting. Study doesn't hurt." Doesn't it? We object to foul air, poor light, etc., as much as the superintendent, and more, if possible. But in the very same State a physician was called to a boy of eight years old, who was delirious and continually repeated, "Angy two times meet me on a pond." The next day the patient was rational but remembered neither what he was saying nor the doctor's visit.

Finally it was discovered that he was afraid to go to school because there was some lesson he could not learn, and the words were identified as follows: "An angle is two lines meeting at a point!" Quite so. An eight-year-old understands "a pond," but not "a point."

Everybody wants to be ahead of everybody else. Everybody wants his child to be ahead of everybody else's child. Socrates thought that the easier and the nobler way was not to be envying and criticising others, but to be improving ourselves. Ruskin thought that to provoke a boy, whatever he is, to want to be something better, or, wherever he was born, to think it a disgrace to die, is the most entirely and directly diabolic of all the countless stupidities into which the British nation has been of late betrayed by its avarice and irreligion.

But Socrates and Ruskin are unknown to the democracy and we who still believe in gentler and nobler things must try to keep the torch of truth burning, and influence public opinion, as physicians and citizens, in what we know to be the right direction.

SANITARIUM FOR CONSUMPTIVES AT CALGARY.

A sanitarium for the treatment of pulmonary tuberculosis is being erected at Calgary, N.W.T. The building now in course of erection will be two stories high, with a stone foundation. It will be one hundred feet long, and at the centre forty-eight feet in depth. There will be an eight-foot verandah at three sides of the building, which has a southern exposure and sloping ground. On the ground floor there will be recreation and reading rooms, consultation room, dining room, kitchen, pantry, store rooms and nine bed-rooms. On the second floor there will be twelve bed-rooms, six of which will be sun-rooms almost completely surrounded by glass. The building is being so constructed that additions can be easily made. Besides this main building there is a sanitary annex, which will contain all the lavatories, etc. There will be erected a number of modern cottages with canvas walls. Dr. Alfred Ernest Wills (Trin. '89) will be the Physician-in-charge.

CIGARETTE SMOKING.

We have heard a great deal about cigarette smoking in Canada during the last few months. The question has been discussed at both Parliaments in Ottawa and Toronto. An army of good women paid a special visit to Ottawa in hopes of getting legislation which would prevent the manufacture and sale of cigarettes in Canada. The discussion which was carried on by the members of Parliament was both interesting and entertaining. One prominent legislator, who knows a good deal both about eating and smoking, informed the good women that indigestion was quite as frequently caused by bad cooking as by good smoking.

It is always unfortunate that would-be reformers assume an attitude which is so extreme as to be simply absurd. We are quite in sympathy with those who believe that cigarette smoking is in practically all cases injurious to children, and sometimes injurious to adults. We will always support everything in the way of legislation which will minimize such evils. Cigarettes should certainly not be sold to young boys. While strongly supporting certain restrictions and limitations, we desire to point out certain rather important mistakes in the arguments used by some radical reformers. The chief mistake is the assertion that cigarette smoking is the worst form of tobacco smoking; on the contrary, cigarette smoking is certainly the least injurious method of using tobacco, even inhaling does not fill the lungs with smoke as some assert. As pointed out by the *New York Medical Journal*, only the larynx and upper part of the trachea could be touched in this way. The same journal goes on to say that the most powerful effects of tobacco are to be obtained from the chewing habit, next in order comes the use of the cigar, which includes to some extent both smoking and chewing, non-absorbent porcelain pipe, the briar, the clay "cutty," and the porous meerschaum, continuing the descending scale which ends with the much maligned yet comparatively harmless cigarette. Under such circumstances it would be absurd to enact a law forbidding the sale of cigarettes and allowing the sale of every other form of tobacco.

UNIVERSITY OF TORONTO, FACULTY OF MEDICINE.

Arrangements have been made by the Faculty to conduct a Post Graduate Course, extending for two weeks, immediately preceding the meeting of the Ontario Medical Association. The programme will include operations, and surgical and medical clinics in the various hospitals, and also clinical laboratory methods and practice in the laboratories of the University. The fee of $10 will be charged for the clinical laboratory work. The Course will begin on Wednesday, June 1st, when a time-table may be obtained in the Secretary's office. Practitioners who wish to take the Course are requested to notify the Sec retary before coming to Toronto.

THE METRIC SYSTEM IN PRESCRIBING.

The *British Medical Journal*, in a recent issue, published a few notes about the metric system of weights and measures as applied to the writing of prescriptions. It does not pretend to give anything new on the subject, but simply certain features which apply to the every-day work of the prescribing physician. It, however, expresses a somewhat important opinion to the effect that it is hopeless to endeavor to write equivalent formula in the two systems. The metric system can hardly become practical until we adopt it in its entirety, and drop the old system. Such a radical change will probably come in the near future; in the meantime the majority of practitioners and druggists will continue to use the old system for a time.

Those who wish to gain some practical idea of the new system should purchase a set of metric weights and measures, which can be obtained at a trifling cost. By weighing and measuring a few substances they would soon become accustomed to thinking in metric quantities. Until we do this we cannot successfully use the metric system in the writing of prescriptions.

CANADIAN MEDICAL ASSOCIATION.

There was for some time an element of doubt as to the most suitable dates for the next meeting of the Canadian Medical Association. It has, however, been definitely decided that it will be held at Vancouver, B.C., August 23-26 inclusive. The transportation rates have been arranged for as follows: Toronto and return, $62.40; Montreal and return, $68.00; St. John, N.B., and return, $76.50; Winnipeg and return, $45.00; and by paying an additional $10.00 each holder of a ticket on his return may go to St. Louis via St. Paul and come back to Canada via Detroit, either by the G.T.R. or C.P.R. The berth rate each way is for Toronto $17.00. California and Yellowstone Park may also be visited after leaving Vancouver. We are not certain that many will go from Toronto, but we are glad to state that a number of physicians in various parts of Ontario are making their plans to attend the meeting during their summer holiday. It is rather unfortunate that the dates fixed will prevent the Toronto physicians who go to the meeting from returning to their homes in time for the Exhibition in that city. As, however, the outside attendance at the Exhibition during the first few days is small this objection cannot be considered very serious. Dr. Tunstall, the President, tells us in a recent letter that he is looking for a good contingent from Toronto and Ontario generally.

Graduates of Queen's.

Thirty-seven students have been granted their M.D. degrees by Queen's Medical College. R. W. Bailey, M. E. Branscombe, B.A.; W. C. Brown, J. S. Carruthers, J. C. Caskey, A. K. Connolly, T. J. Costello, E. W. Delong, A. C. Driscoll, A. D. Falkner, L. A. Ferguson, A. A. Ferguson, J. V. Gallivan, W. Gibson, J. J. Gillespie, J. R. Goodfellow, J. A. Graham, T. J. Gray, L. W. Hoppins, E. C. Kinead, A. J. Lalonde, G. C. Leach, B.A.; R. A. Lee, A. T. Munro, F. C. McCullough, H. A. McDonald, M. McGonigle, N. I. Pennock, Miss Victoria Reid, B.A.; E. J. Robinson, S. H. Rutledge, A. H. Singleton, B.A.; N. Smith, H. Tandy, B.A.; E. J. F. Williams, B.A.; C. S. Vanness, J. M. Young, B.A.

Personals.

Dr. J. R. Lancaster (Tor. '95) is now practising in Tilsonburg.

Dr. Geo. W. Fletcher (Tor. '02) is practising in Wilkesport, Ont.

Dr. G. Sterling Ryerson spent the Easter vacation at Atlantic City, N.J.

Dr. Osler, of Baltimore, Md., spent a portion of Easter week in Toronto.

Dr. Montizambert, of Ottawa, spent Easter week in New York City.

Dr. J. Edgar Davey was married to Miss Flatt, of Hamilton, April 20th.

Dr. W. A. Baker (Vic. '90) has removed from Bobcaygeon to Lakefield.

Dr. A. T. Steele (Tor. '01) has removed from Arva to Shelburne.

Dr. Bruce Riordan, of Toronto, paid a short visit to Boston early in April.

Dr. R. D. Rudolf, of Toronto, has been appointed surgeon of The Light Horse.

Prof. A. B. Macallum, of Toronto University, will visit Europe sometime in May.

Dr. J. A. Campbell (Tor. '01) has succeeded to the practice of Dr. Munro, of Wheatley, Ont.

Drs. Algernon Temple and Allan Baines visited New York April 19th, and remained for a week.

Dr. Walter King-Dodds, of Cincinnati, O., paid a visit to his parents in Toronto during Easter week.

Dr. Walter Johnston, of Carlton street, Toronto, was married April 20th, to Dr. Margaret McCallum.

Dr. W. H. B. Aikins, of Toronto, after spending two weeks in New York, returned to Toronto April 16th.

Dr. E. Flath (Tor. '00) has removed from Chelmsford to Drayton, Ont., where he succeeds Dr. Lucy in practice.

We are pleased to announce that Dr. Harley Smith, of Toronto, has nearly recovered from his recent serious illness. He returned to his home April 18th, after recuperating in Atlantic City.

Dr. Roswell Park, of Buffalo, N.Y., sailed for Europe March 24th, and will attend the German Surgical Congress at Berlin, April 4-9.

During the Easter holidays Doctors O'Rielly, Wright, Wishart, McConnell and Fenton, of Toronto, visited "The Welland," St. Catharines.

Dr. J. Orlando Orr returned to Toronto from Chicago March 29th, after making arrangements for a number of Midway attractions for the Toronto Exhibition.

Dr. Chas. O'Reily, of Toronto, has recovered from an attack of septicaemia. There was slight injury to the ankle with lymphangitis extending to the groin.

Drs. Hutchison and Armstrong, of Montreal; Dr. Ingersoll Olmstead, of Hamilton; Dr. Anglin, of Kingston; and Dr. MacLaren, of St. John, N.B., sailed from Boston on the *Romanic* for Genoa, April 9th..

Dr. J. E. Lehmann (Tor. '93) after spending three years in Berlin and Vienna, and later after holding the position of Senior Assistant Visiting Surgeon on the staff of the German Hospital, of London, England, for several years, has resigned the latter position, and is now practising surgery at Winnipeg, Man.

We are pleased to be able to announce that Dr. J. T. Fotheringham, of Toronto, is now practically well. He sailed from New York April 21st, for Genoa. After "doing" a portion of Italy he will go north to Switzerland, and thence to London. He will probably return to Canada in the latter part of June.

Dr. Brefney O'Reily, of Toronto, has passed the conjoined examinations of the Royal College of Surgeons, England, and the Royal College of Physicians, London. Dr. O'Reily was born in Canada, educated in Canada, graduated in Canada, and is now entitled to practise medicine in any part of the British domains excepting Canada. He will return to Toronto about the end of May.

The medical profession of the County of Elgin entertained the Honorable J. H. Wilson, M.D., of St. Thomas, at a banquet, April 9th. Dr. Wilson's brother physicians adopted this method of showing their appreciation of his appointment as a Dominion Senator. Dr. Cascadden, of Dutton, occupied the chair, and proposed the health of the guest of the evening. Among other speakers who spoke kindly of the new Senator were Drs. Kains, Luton, Guest, Sinclair and Marlatt.

We are not quite sure whether we made a mistake in our last issue as to the amount of money which Mr. Jno. D. Rockefeller is likely to give to St. John's Hospital, Baltimore. It has been recently announced that he has already given $500,000. Whether this is simply one instalment or the whole amount of his present, it should help materially to cover losses suffered by the recent fire.

Mr. W. M. Grant, the representative of Messrs. Parke, Davis & Co. in Toronto for some years, has been promoted to the position of manager of the Canadian Laboratories, at Walkerville, Ont. Mr. Grant is a Canadian, son of Rev. R. M. Grant, D.D., of Orillia, Ont., and has two well-known brothers, Geo. D. Grant, M.P., of North Ontario, and R. A. Grant, a barrister, of Toronto. The promotion of Mr. Grant will be highly appreciated by the profession of the Province.

Obituary.

WM. P. BUCKLY, M.D.

Dr. Buckly, of Prescott, Ont., died in the Ogdensburg Hospital, April 2nd, after undergoing a surgical operation. He graduated from McGill in 1870, and was well-known as a skilful practitioner in Eastern Ontario. He was a member of the Board of Examiners of the College of Physicians and Surgeons of Ontario in 1881-1882.

FRANCIS CLUNIE SIBBALD, M.D.

Dr. Sibbald died at his late residence, "The Briars," Sutton, Ont, April 7th, aged 80. He had not been in active practice for many years.

FRED. BRITTON, D.D.S.

Dr. Fred. Britton, of Brantford, Ont., died at the residence of his brother, Dr. Wm. Britton, of Toronto, April 4th, aged 30, after undergoing an operation for appendicitis. He studied medicine for a time in the Faculty of the University of Toronto, but later engaged in the study of dentistry, and after graduating practised for a time at Brantford.

JOHN ADAMS CARROL, M.D.

John Adams Carrol, M.D., died at his residence in St. Catharines on the 25th of March, 1904, at the age of 58. Dr. Carrol was the son of the late Rev. John Carrol, a pioneer both of the Methodist Church and of Toronto. He graduated from Victoria College in 1869, and practised for some years in Norwich. Afterwards his office was for a long time on the Kingston Road, a short distance east of the first toll-gate, or, according to the later nomenclature, on the south side of Queen St., a short distance east of Broadview Ave. About twenty years ago he removed to St. Catharines, relinquishing active practice on account of failing health and a desire to make the best of what health was left him in a quiet and unostentatious way, husbanding his resources and devoting himself to his books, to field researches in the flora of the Niagara Peninsula, and to general literature. He was a great book collector, and the results, donated chiefly to the Public Library of St. Catharines, will be a valuable acquisition to it.

Dr. Carrol was connected on his mother's side with the historic Adams family of New England, through whose old haunts he delighted to wander with his camera.

His name was a household word in many of the homes of old Don Mount, or Riverside, now a part of Ward 1, and many of the middle-aged and older practitioners of Toronto have a pleasant remembrance of him as an upright, straightforward colleague, and a most entertaining companion, one who could take the ordinary incidents of travel and adventure, and by graphic word-painting make a most interesting story.

Correspondence.

THE MEDICAL EXPERT

To the Editor of the CANADIAN PRACTITIONER AND REVIEW:

DEAR SIR,—Of the three great profession, Medicine, Theology and Law, Medicine is the only one making progress. Such a change has taken place in medical knowledge that an opinion held by the ablest physician thirty years ago, on say, the causation of phthisis, would at the present time be flatly contradicted by a freshman medical student. But it is the proud boast of Theology that the changing centuries find it still the same. Law, too, dates from a remote past, and our system of jurisprudence is founded largely upon tradition, so that our courts to-day are bound by decisions of jurists who lived at the time of Edward I.

In every commonwealth, the administration of justice is most important, and every physician, as a good citizen, is interested in seeing that the scales balance fairly. But when the doctor enters the courts of law, as a medical expert, he does not appear in a very favorable light, and occupies a lower position in the public eye than his skill and his learning warrant. His merits are more readily seen in the midst of a pestilence, when the court has been adjourned *sine die*, and lawyers and judge have fled, and can no longer bother him with hypothetical questions. Expert medical testimony is so contradictory and hence so valueless, that eminent legislators have seriously thought of excluding it altogether. Not long ago, after listening to a doctor's evidence, the opposing counsel asked: "Is it not true, that if I have money enough to offer for the loss of time, I can go out and get ten physicians of good repute to contradict every word you have said?" And the witness had reluctantly to admit that such was the case, although the opinion he had expressed was scientifically accurate.

There are many reasons given for the rude gibes which are cast from the bench at the medical profession as they appear in what may be called their public capacity of witness. In the first place, the term "expert" has never been legally defined, and as the law now stands, any one who can write M.D. after his name may testify as an expert. This places the fledgling medico on the same footing as the man of distinguished attainments, so far as the right to give evidence is concerned. It is the door, too, through which enters the impudent ignoramus, the pseudo-expert, who brings his profes-

sion into disrepute by making assertions which would expel him from any medical society in the kingdom.

It is a matter of great regret, also, that doctors array themselves on each side, and engage in the contest like the respective counsel, with this difference, that the lawyer enters the arena openly as a hireling, to accelerate or defeat justice, as the case may be; while the physician is under oath, supposed to deal with truth only, but plays the double rôle of witness and advocate. In the wordy struggle which follows, each expert seems more anxious to destroy the testimony of those retained by the other side than to elucidate the particular question at issue.

Another cause for this unsatisfactory state of affairs is the method of obtaining testimony, after the witness is in the box. Quite often the lawyer frames a hypothetical question which suppresses the facts he does not desire to have emphasized, and brings into prominence others which he thinks are favorable to his client. Although the expert replies correctly to this, his answer is misleading when applied to the case in hand, for obvious reasons. At other times the cross-examining counsel demands a categorical answer to a question which cannot fairly be answered in that way.

These are a few of the defects in our present system, and until they are remedied I am afraid the medical profession must be content to occupy the undignified position in the eyes of the legal fraternity which it now holds.

MEDICO.

MUNICIPAL SANITARIUM—TORONTO NEEDS ONE.

To the Editor of the CANADIAN PRACTITIONER AND REVIEW.

Dear Sir,—I have been frequently asked this question: Is there need of a municipal sanitarium exclusively for our citizens suffering from consumption? Unhesitatingly I answer, Yes!

The sanitarium at Muskoka is only for cases in the early stages of the disease, and is open to patients from all parts of the Dominion, and therefore has only limited room for Toronto, and, secondly, it is too far away to attract our consumptives in any considerable numbers, and thus inadequate to meet the needs of this city.

The so-called Toronto Free Hospital for Consumptives in the advanced stages of the disease (near Weston), and open to all Canadians, is no doubt an attractive card for securing subscriptions from all parts of the Dominion.

In this city there are continuously at least 600 persons in the advanced stages of the disease, in this province about 5000, and in the Dominion not less than 15,000.

Now, it is reasonable to believe that from the extensive advertising that is being done, at least 5 per cent. of these 15,000 may direct their faces towards this city; and that upon their arrival at said hospital will find the fifty to one hundred beds all occupied, and realize that they are within a ten-cent car fare of the great city whose name had been used to attract them.

Thus year after year consumptives from all parts of the Dominion will be dumped into this city and become an intolerable nuisance, instead of being cared for in a sanitarium in their own county municipality.

In 1897 a meeting was held at Calgary, Alberta, to take steps to inform the citizens of the Dominion that the Territory of Alberta was a favored place for consumptives. The news spread and many consumptives turned their faces towards Alberta.

Dr. Lafferty, of Calgary, who had favored this movement, in addressing the Canadian Medical Association at Winnipeg in 1901, warned the medical men of the east not to send their consumptives to Alberta, as there was no sanitarium accommodation, that the hospitals, hotels and boarding-houses would not take them in, and that their condition was deplorable.

This, together with the experience of Colorado, California and other states, should be warning enough to our citizens.

The burning question in Toronto to-day is: Shall our citizens contribute $25,000 so as to take advantage of the $50,000 voted by the ratepayers, and of the government aid of $4,000 for land and buildings, and $1.50 a week for each patient, and establish a municipal sanitarium under the act, exclusively for our citizens suffering from consumption, or shall this city become the dumping place of the whole Dominion for advanced cases of this disease?

E. J. Barrick.

Book Reviews.

The Public and the Doctor. By a Regular Physician. Dallas, Texas: Dr. B. E. Hadra.

This little book contains many sensible hints to the patient and the public.

Fischer—Infant-Feeding in its Relation to Health and Disease. A Modern Book on all Methods of Feeding. For Students, Practitioners, and Nurses. By Louis Fischer, M.D., Visiting Physician to the Willard Parker and Riverside Hospitals, of New York City; Attending Physician to the Children's Service of the New York Poliklinik; Former Instructor in Diseases of Children at the New York Post-Graduate Medical School and Hospital; Fellow of the New York Academy of Medicine, etc. Third edition, thoroughly revised and largely re-written. Containing 54 illustrations, with 24 charts and tables, mostly original. 357 pages, $5\frac{3}{4}$ x $8\frac{3}{4}$ inches. Neatly bound in extra cloth. Price, $1.50, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

Dr. Fischer has the advantage of speaking from experience, and his book makes interesting reading. It has, in this edition, been largely re-written, with the idea of making it more useful to the general practitioner, who may not have access to milk laboratories. The beauty of the whole work is that it is practical.

The American Year-Book of Medicine and Surgery for 1904. A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of George M. Gould, A.M., M.D. In two volumes. Volume I., including *General Medicine*. Octavo, 673 pages, fully illustrated; Volume II., *General Surgery*. Octavo, 680 pages, fully illustrated. Philadelphia, New York, London; W. B. Saunders & Co., 1904. Canadian Agents: J. A. Carveth & Co., Limited, 413 Parliament Street, Toronto, Ont. Per volume: Cloth, $3.00 net; Half Morocco, $3.75 net.

The American Year-Book of Medicine and Surgery continues to maintain its high place among works of its class. Indeed, the issue of 1904, now before us, if anything, is even better than the excellent issues of previous years. Such a distinguished corps of collaborators which the editor, Dr. George M. Gould, has enlisted as his assistants, is sufficient guarantee that the essential points of progress are brought out, and the collaborators' notes and comments are excellent. In the illustrative feature the 1904 issue fully maintains its reputation, there being fourteen full-page insert plates, beside a number of excellent text-cuts. Saunders' Year Book for 1904 is the best work of its kind on the market.

Preventive Medicine. Two prize essays, "The General Principles of Preventive Medicine," by W. Wayne Babcock, M.D., and "The Medical Inspection of Schools; a Problem in Preventive Medicine." By Lewis S. Somers, M.D. Published for gratuitous distribution to the medical profession by The Maltine Company, of Brooklyn, N.Y.

Four Epochs of a Woman's Life. By Anna M. Galbraith, M.D., Philadelphia, New York and London: W. B. Saunders & Co.; Toronto: J. A. Carveth & Co.

Dr. Galbraith writes for the laity on Maidenhood, Marriage, Maternity, and the Menopause, and has discharged her difficult task well. This is the 2nd edition, revised and enlarged, and we are glad that the author has included, among other additions, a reference to the early signs of uterine carcinoma.

Biographic Clinics, Vol. II. The origin of the ill-health of George Eliot, Geo. Henry Lewes, Wagner, Parkman, Jane Welch Carlyle, Spencer, Whittier, Margaret Fuller, Ossoli and Nietzsche, by Geo. M. Gould, M.D., editor of *American Medicine*, author of "An Illustrated Dictionary of Medicine," "Borderland Studies," etc. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1904.

The first volume of this work was discussed in this and other medical journals so fully that there is little left to be said in way of review of the various studies taken up in Volume II. Dr. Gould brings forward a large array of facts to prove his contention that near eye-work is the basis of the ill-health of a great many eminent people, and of many more occupying humbler positions in life. Although his experience and his opinion are at variance with those of a great many physicians who have studied the subject carefully, his contributions have awakened the profession to the possibilities of eye-strain as a remote cause for many an obscure disease. It seems to be the general opinion among the medical profession though, that Dr. Gould has not proved his point. F.A.C.

Progressive Medicine, Vol. VI., No. 1. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences, edited by Hobart Amory Hare, M.D., Jefferson Medical College, Philadelphia, assisted by H. R. M. Landis, M.D. March 1st, 1904. Lea Brothers & Company, Philadelphia and New York. Six dollars per annum.

This welcome quarterly has established such an enviable reputation for itself during the last six years, that it needs no word of praise. The departments into which the work is divided are in good hands, and the reader feels, as he takes up any special subject for study, that he is getting all that is worth knowing about it in a clear, concise and yet readable form. The first volume of 1904 is equal to anything which has preceded it, some of the articles being of exceptional merit. One of these we have abstracted for the benefit of our readers.

F.A.C.

Diseases of the Eye. By L. Webster Fox, A.M., M.D., Professor of Ophthalmology in the Medico-Chirurgical College of Philadelphia, Pa., Ophthalmic Surgeon in the Medico-Chirurgical Hospital. With five colored plates and 296 illustrations in the text. New York and London: D. Appleton & Co., 1904.

This is a new applicant for public favor, and it will prove a formidable competitor for some of the older works on the same subject. The author states as his object, "To provide a digested summary of the known facts for use of students who in after life become practitioners of medicine."

The book therefore is concise, yet covers the ground well. The first chapter is devoted to the development and anatomy of the eye. Having thus prepared the way the author takes up diseases of the eyelids; then of the lachrymal apparatus; the conjunctiva; cornea, sclera; iris and ciliary body: choroid, retina; optic nerve; lens; vitreoas; and lastly, of the orbit, devoting a chapter to each. It will be noticed that a regular plan is observed, passing from the outer to the deeper parts. The author follows the same plan in dealing with the diseases of any special part.

There are also chapters upon glaucoma; sympathetic ophthalmia; and the use of the Rontgen rays in locating foreign bodies in the eye. Two specially valuable chapters are, one on the relation of ocular affections to general diseases, and one on the pupil in health and disease. Refraction he speaks of after having considered the diseases.

The illustrations are remarkably good, having evidently been prepared to be helpful to the practitioner rather than for theoretical purposes.

The book concludes with a formulary and a glossary of terms used in ophthalmology, both of which are most valuable especially to the general practitioner.

The work is thoroughly up-to-date, and will take rank with the best of the medium-sized works on the diseases of the eye.

D.

Bacteriology of Every-Day Practice. By J. Odery Symes, M.D. (State Med.), London, D.P.H., etc., Assistant Physician and Bacteriologist Bristol General Hospital. Price, 75 cents. Canadian agents: Carveth & Co., Toronto.

The value of bacteriological examination in the diagnosis and treatment of diseases is now generally recognized by medical practitioners. The author in this little book has three points in view: (1) To point out in what cases bacteriological examination may help in clinical diagnosis; (2) to describe methods of securing and identifying microscopical specimens; (3) to give directions for taking cultures and for preserving tissues to be sent to the laboratory. It is altogether a desirable and practical little book, well suited for both students and physicians.

Simon's Clinical Diagnosis. A Manual of Diagnosis by Microscopic and Chemical Methods. For Students and Practitioners. By CHARLES E. SIMON, M.D. Late Assistant Resident Physician at Johns Hopkins Hospital, Baltimore. New (fifth) edition, thoroughly revised and much enlarged. Octavo, 695 pages, 150 engravings, 22 colored plates. Cloth, $4.00 net. Lea Brothers & Co., Publishers, Philadelphia and New York. 1904.

Exact methods of diagnosis are of comparatively recent development, and, as they underlie all successful treatment, they should be understood and practised by every physician. These methods are not complicated nor abstruse, and the object of this volume—an object which has been most satisfactorily attained—has always been to set forth and explain these methods and their practical application so simply that they may be readily grasped by every student and practitioner. Four large editions have already been demanded, the last of which was completely exhausted in less than two years.

Besides a careful revision, this edition embodies much new matter which has appeared in the literature of the past two years. The chapter on the blood has been almost entirely rewritten, and has been enlarged by sixty pages. Special pains have been taken with the chapter on technique. A section dealing with the nature of anilin dyes and the principles of staining has been introduced, which it is hoped will render this portion of the book more interesting to the clinical laboratory worker, and will serve as a guide to further investigation. For convenience of reference, the subject of leucocytosis has been rearranged in such manner that hyperleucocytosis and hypoleucocytosis are separately considered in connection with the different varieties of leucocytes. A new section deals with the kryoscopic examination of the blood. The bacteriology and parasitology of the blood have been enlarged, with sections on paratyphoid fever, gonococcus septicæmia, bubonic plague, trypanosomiasis, and spotted fever. Material changes and additions have furthermore been made in the chapters on the feces, the sputum, the urine, and on transudates and exudates, and minor alterations occur throughout the book. Illustrations, including colored plates as well as engravings, have been added wherever they appeared necessary to elucidate the text, and this new edition will without doubt greatly increase the already wide usage which the volume enjoys.

Messrs. E. B. Treat & Company have decided to merge the two following journals:—*The International Medical Magazine* and the *Archives of Pedriatics*. The publishers are discontinuing the Magazine and hope that its subscribers will continue their interest by reading The Archives of Pedriatics.

Miscellaneous.

Brief Observations on Some Conditions in Women that are of Much Concern to the Practitioner.—J. Ridgly Simms, A.M., M.D., Racine, Wisconsin.

The conditions of which I wish to speak are dysmenorrhea, and the state following miscarriage or abortion, in which there are retained portions of the placenta and membranes that require removal or expulsion.

For lack of space, I shall devote myself, in the present paper, chiefly to dysmenorrhea, and will dismiss the condition following abortion with a few remarks, which may as well precede the other part of my article. I reserve for a future communication the detailed discussion of this important and interesting clinical condition.

The effects of retained placental or fetal tissue in a partially successful miscarriage or abortion consist in hemorrhages, purulent discharge, enlargement of the uterus, subinvolution, metritis, endometritis and sepsis. The indications in these cases are, therefore, the thorough emptying of the uterus and the rendering of the womb-cavity aseptic.

In ordinary cases this must be done by surgical interference, including curetting and the removal of all decomposing and diseased tissue, followed by the application of antiseptics to the endometrium. There is a class of cases, however, in which, for one reason or another, curettage is refused by the patient, and in which it is incumbent upon the physician to give what relief he can by medical means. In such cases I have prescribed Ergoapiol (Smith), a combination of the active principles of ergot (ergotine) parsley (apiol) and certain other emmenagogues and uterine tonics. In one case of this kind which came under my observation some months ago, I used Ergoapiol (Smith) with such marked success, that I learned since then to rely upon this preparation in removing the retained fragments from the uterus, emptying the organ and reducing it to its normal size and functions. The remedy in question has proved so trustworthy in my hands in these cases, that when it disappoints, which it rarely does, I look about to ascertain wherein I myself have erred.

A discussion of the causes of dysmenorrhea would lead us too far in the present brief clinical paper, and it will suffice if I assume that the reader is acquainted sufficiently with this part of the subject to follow me in the remainder of the article. The clinical diagnosis of dysmenorrhea is in itself easy enough, while the diagnosis of the cause is not always so simple. In the cases presented here I paid especial attention to the causation of the menstrual pain, as I believe that in this manner I

was better able to outline the indications for treatment. It goes without saying that dysmenorrhea from mechanical obstruction is not amenable to medical treatment. Fortunately, however, it has been in my experience at least, not frequent, as dysmenorrhea depending upon congestion. The specially disagreeable and intractable form of dysmenorrhea which is accompanied by a fetid discharge as a result of the decomposition of the retained menstrual blood, also comes under discussion here, as the use of douches with antiseptics and deodorants cannot be hoped to affect it permanently, while the employment of more radical medicinal means does bring about the desired effect in this condition.

In congestive dysmenorrhea, and in that form which is accompanied by fetid discharge, the indications are to diminish congestion, by promoting the contractions of the uterus and relieving it of the accumulated blood, to stimulate glandular activity in the mucosa, to restore the tone of the uterus and the nutrition of its tissues to normal, and to relieve spasm and pain.

The following cases illustrate the effects which I obtained with the use of Ergoapoil (Smith) in the treatment of dysmenorrhea:

Some months ago I was consulted by a young woman who had suffered from scanty, fetid menstruation, accompanied by a great deal of pain, since the birth of her first child seven years previously. Her labor had been followed by a tear of the perineum, which had been left unrepaired, and also a laceration of the cervix uteri. This patient consulted a specialist, but his treatment did not give her relief. Examination revealed the presence of the uterine and perineal lacerations already mentioned, and disclosed a chronic endometritis that had given rise to a fetid discharge and to pain during each menstrual period. I repaired the tears, curetted the uterus, and hoped in this manner to obtain permanent relief of the patient's symptoms. After she had recovered from the operations, she declared that she was feeling better than she had been for years. But very soon the fetid discharge and the pain returned at each menstrual period, and evidently something else had to be done if I wanted to save my reputation. I then tried local applications, alteratives, uterine tonics, etc., all without avail, until finally Ergoapoil (Smith) was given. The result was immediate relief and a gradual and permanent improvement in the menstrual flow until it was free from pain and devoid of any disagreeable odor.

This patient was evidently suffering from congestive dysmenorrhea, which was intensified by the presence of lacerations of the cervix and the perineum which had existed since partu-

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VOL. XXIX. TORONTO, JUNE, 1904. NO. 6.

Original Communications.

OPERATIVE RHINOLOGY: ITS REGULATIVE PRINCIPLES.*

BY J. P. MORTON, M.D., L.R.C.P.(Edin.), HAMILTON.

When our President honored me by asking for a paper, I said to him that I thought very few of our members would be interested in the special lines from which I could take my subjects. I will endeavor, however, to interest the general practitioner as well as the specialist for a short time.

I have chosen this subject for discussion to-night, first, because within the last twenty years this former insignificant sprig of the operative tree has become a flourishing branch; second, because many general practitioners have entered this field of work, and are fairly proficient in it; third, because of the very interesting papers lately read on post-operative treatment of the nasal mucous membrane; fourth, and chiefly, because there are some who maintain that operative rhinology has run riot, and that the majority of the numerous operations now performed on the nose by means of the saw, and especially by the cautery, are not only unnecessary but harmful.

"Too many operations are done in the nose." This is a common expression among the laity and also in the profession. It is said we have no standard, and that we operate indiscriminately and unscrupulously. We are told that very serious results often follow our operative work. To a conscientious rhinologist these are very damaging aspersions, and I will endeavor to meet them fairly and honestly, try to find out what truth they possess, show that we have a standard and make clear what that standard is.

*Read before the Wentworth Medical Society, April, 1904.

Let me first remind you of the more important symptoms which bring patients to us for nose examination:

1. Rhinitis.—A patient may have an occasional rhinitic attack through carelessness: but frequent attacks of rhinitis, either mild or acute, indicate some abnormal nasal condition. This cause should be definitely ascertained and removed.

2. Mouth Breathing, or, as the patient generally has it, "breathing with difficulty through the nostrils." Few in the community now are unacquainted with this condition and its evil consequences. Some call it a habit, but there is always a cause in the nose or throat.

3. Rhinitis Hyperæsthetica, or Hay Fever.—You are undoubtedly acquainted with the experiments of Dr. Dunbar and know of his success in counteracting the toxin with the antitoxin, both obtained from the pollen grains. Nevertheless I mention hay fever as a symptom of an abnormal nose, because Dr. Dunbar and Felix Semon who corroborated the experiments, admit that the nose must be put into a normal condition.

4. Hypersecretion and its opposite.—"My nose runs too much," and "My nose is too dry," are common expressions used by patients. A normal nose secretes about twenty fluid ounces of muco-serum per diem.

5. Epistaxis.

6. Derangements of smelling.

7. Foul Breath.—This frightens the patient with great haste to the specialist. The cause of the smell is found to be an atrophic mucous membrane, or the lodgment of secretion in nasal crevices or peritonsillar crypts, which spots are often very difficult to locate.

Then we have what might be termed distant symptoms—(1) Eustachian tube catarrh; (2) Middle ear inflammations: (3) Mastoid affections; (4) Pharyngitis: (5) Laryngitis; (6) Tonsillitis: (7) Bronchitis; (8) Asthma: (9) Accessory sinus troubles. Before leaving the symptoms permit me to mention four others not so common. They are not mentioned in this connection in text-books, and yet I have been forced to put them down to nasal conditions in certain cases.

1. *Neuralgia.*—After doing an Asche operation for straightening the septum, a patient remarked that she had been since free from her previous severe attacks of neuralgia. Undoubtedly the pressure had been removed from the first or second divisions of trigeminus, which are represented in the nose. I have since read of twelve cases where neurectomies and neurotomies, and even removal of gasserian ganglion had been performed, yet relief had not been secured for excruciating facial neuralgia until the septum had been straightened.

2. *Nervousness.*—A mouth breather never sleeps soundly.

He may think and say he does. He may be unconscious, but the nervous system is just half relaxed as indicated by dreams, vagaries of imagination and movements. A nervous system or tension all day, and only half resting all night, must soon get below tone, then the patient becomes irritable, restless and nervous. Free breathing must be secured for these cases.

3. *Coughs.*—Tonsillitic, pharyngeal, bronchitic, laryngeal and pneumonic coughs are well recognized, but we do not speak of nose coughs, and yet I believe they are common. Careful examination should be made for sensitive cough spots. A patient was sent not long ago with a most persistent cough, which bothered him all day and all night: he coughed about fifteen times a minute. He had a granular pharynx and enlarged tonsils, which I treated for nearly a month, but this gave no relief. Upon minute examination of the nose I found the cough would immediately stop when I put cocaine on a certain spot, and subsequent cauterization of this area secured relief.

4. I have often felt that the indefinite sclerotic conditions in the middle ear, and especially around the stapes' base, are caused by slight but persistent inflammation from the posterior nasal conditions, such as posterior septal projections or deviations, which are so easily overlooked.

Now, returning to the operation itself, my plan is to have as my standard the normal nose, and when any of the symptoms above referred to are present I feel myself justified in making the nose conform to this standard. If we follow this rule we cannot be accused of "sawing too many noses" or of "having a mania for operating."

The assumption of this position necessitates an answer to the important question, "What is a normal or a standard nose?" With your permission I would like to give you the principles which a study of authorities and my personal experience have led me to adopt.

Septum.—The septum should be vertical and plane. The septum generally deviates slightly, and there are often developmental ridges where septal cartilage and vomer unite, and where vomer and maxillary crest join. These may produce no symptoms. But if they do, these, which we might term natural abnormalities, should be dealt with the same as thickenings, ridges, spurs, deviations, or redundant erectile tissue of the tubercle. The resultant septum should be as nearly as possible vertical and plane. The good results of Asche operations are often lessened by forgetting to remove projections, and these are better done before proceeding to straighten the septum.

Septum should be carefully examined where it passes into the attic, for the air is drawn in through the middle and upper

meatuses and expelled through the lower. Look for redundant tissue at the tubercle of septum opposite the anterior end of the middle turbinal. In the attic branches of the fifth nerve may be pressed upon causing severe facial neuralgia. The septal division of the nasal nerve comes from the ophthalmic division of fifth, and the naso-palatine nerve (nerve of Cotunnius) comes from the sphero-palatine ganglion.

Vomer and vomerine cartilage should be examined far back. Deviations here are most frequently overlooked and are common causes of the ordinary nose symptoms as well as atrophic rhinitis and eustachian and middle ear trouble.

Finally, do not forget that small septal irregularities may be the cause of the symptoms, although at the time of examination they appear to have no bearing on the case.

Opposing surfaces should not touch. The septum and turbinate bodies should not even occasionally come in contact. Four to eight millimetres should exist between the inferior turbinate and septum, and one and a half to three millimetres between the middle turbinate and septum.

Touching may be due either to enlarged or misplaced turbinate bones or redundant erectile tissue over them. If symptoms are present, the nostrils should be repeatedly examined, even if the first examination reveals apparent normality.

Breathing space should allow of ample breathing at all times. They may be dissimilar but should be as nearly equal as possible. The amount of available mucous membrane should stand in such proportion to the breathing space that when the air reaches the naso-pharynx it will be saturated, filtered and at blood heat. This fine balance between the available mucous membrane and breathing space is absolutely necessary to the perfect performance of these important physiological functions. When the breathing space is too large, as in athropic rhinitis, too much air passes over an atrophied mucous membrane and reaches the naso-pharynx unheated, uncleansed and unsaturated. When space is too small, as in hypertrophic rhinitis, etc., the same evil results follow for the air is gulped in through the mouth.

Erectile tissue should not be redundant or hypertrophied. Contraction under cocaine precludes hypertrophy but not redundancy. Erectile tissue is found over the turbinate bones, on the floor of the nose and on septum opposite anterior end of middle turbinal, which area is named the septal tubercle.

Besides the ordinary results of hypertrophy or redundancy of the erectile tissue, the accessory sinus openings are closed. Inflammatory secretions may then collect in the sinuses, *e.g.*, the frontal. When turgidity and intumescence pass off, and the openings become again patent, this infective collection flows out under the middle turbinal at the region of the hiatus

semilunaris into the cup-shaped infundibulum, and, therefore, into the maxillary antrum, and this is how frontal sinus and maxillary antrum trouble should not surprise us by co-existing.

My endeavor then is to have the nose fulfil, as far as possible, these conditions. We might now consider the objections raised to nose operating:

(*a*) Destruction of mucous membrane. The mucous membrane is the functioning structure in the nose; by it the air is cleansed, heated and saturated. It is said we cut this off and rip it up with the cautery until it becomes atrophic, and the nose is unable to perform its physiological functions. But we are not to destroy mucous membrane unless it is redundant or hypertrophied, when it is not only unnecessary to the functions of the nose, but really hinders the rest of the nose from functioning.

Snare, scissors and saw are the best instruments for removing it. If the cautery point or knife is used it should be put right into the bone and no ripping done. Only a very small scar is thus necessary, and the effect is to be gained chiefly by forming cicatricial bands between surface and periosteum and not by destroying large areas. Superficial cauterization I believe to be useless and harmful.

(*b*) Crusty conditions are said to result. These undoubtedly happen sometimes, but are nearly always from leaving the wound rough. Smoothness is secured by massage of the healing septal areas.

(*c*) Septal perforations. These occur in the septal cartilage and always mean bad surgery. They do little harm, but bother the patient by bleeding and collecting crusts. If the perforation is not large, and a thickening exists near the opening, I sometimes perform the following minor operation with success: Cut the necessary cartilagineous flap from the thickened septum, which of course has two layers, and allow it to hang by a piece of mucous membrane at the anterior end. Twist it forwards, and apply it to the perforation, after scarifying the edges of the opening.

(*d*) Severe hemorrhage. All experienced rhinologists can give histories of severe bleedings, primary and secondary. I use adrenalin to keep the field clean during simple operations or the first part of an Asche. I believe it increases the tendency to secondary hemorrhage. Plugging is not helpful except in rare cases, unless the wound is pressed upon. Plugging the posterior nares retards the flow of blood from nasal veins and increases congestion, and I have seen two bad cases stop on having the plugs removed. The Simpson-Bernay's tampon is very useful, and presses on the bleeding area. The patient should sit up and hold head slightly forward, this prevents

vomiting. Doctor should insist upon quietness, no speech, no food or drink; plug the other nostril, and so direct the cold air through the bleeding nostril. I do not trust to local applications or medicine given internally. When making the applications the area is greatly disturbed. No patient should be allowed to die by bleeding from nose as operation can be resorted to in the last extremity.

(*c*) Adhesions. Pynchon calls post-operative synechiae the *bête noire* of the rhinologist. Two raw surfaces should never be left opposite each other—this by way of prevention. In sawing away large projections, the mucous membrane should first be dissected upwards and then allowed to fall over the wound, this prevents synechiae. When present, wait until inflammation subsides, then operate radically. Sever the band at both ends, removing sufficient tissue to insure wide separation. Sometimes one can do better by allowing about a week to elapse between severing of the ends. Tampons may be used afterwards.

What part of the nose should be operated upon? Of course the offending part. If one may choose either the scrolls or the septum the latter should be chosen, for three reasons: (*a*) The septal trouble may cause turbinal hypertrophy, whereas turbinal trouble very unlikely causes septal abnormality except in young children; (*b*) The better to prevent the functioning mucous membrane; and (*c*) Operations on the septum are more easy to perform.

Finally, I wish to give my experience regarding aseptic precautions:

After each operation there is, of course, inflammatory reaction, more or less, but one is greatly surprised at the apparent immunity of the nose to serious infections. This is a pleasing reflection, especially when one is busy and finds it difficult to live up to one's theories of asepsis. All rhinological experiences contain unfortunate cases, and I believe it is impossible to escape these. I would illustrate this by a case from my own series. I operated on a lady with ozena, to help nasal drainage; she developed erysipelas of the face. I found afterwards that she had suffered from it two months before in one of her legs. Following this, in about a month, another lady upon whom I operated developed severe facial erysipelas, and I have never satisfied myself that she was not infected by the first case through myself. I know of two other cases during five years. Precautions are necessary before, during and after operation.

Before operation: The nose normally contains germs, and these after operation may become pathogenic. These are the germs which increase during a "cold." Other more dangerous forms, as bacillus diphtheriæ, streptococcus erysipelatosus, also

those of scarlet fever, etc., may be lodged there. Therefore we should order a cleansing spray to be used freely. I would like to freely douche the nostrils, but fear middle ear trouble as a result. My plan has always been to have a sterilizing apparatus, heated by a spirit lamp behind a screen. By this means the instruments can be boiled several times daily. I would like to repeat the boiling after each case, but have found this impracticable. Then I often use a sixty per cent. carbolic lotion for my smaller instruments. These methods are simple and save time.

After operation: The patient is generally asked to stay indoors, but not in bed. A small plug of cotton in anterior nares will prevent cold air, damp air and dust from striking the wound. A one per cent. carbolic spray will be found useful: it will not kill germs, but will retard growth, and thus lessen their virulence.

Rhinologists, then, are justified in making the nose structurally normal and in expecting, according to the principles of cause and effect, that the breathing will be bettered; that the mucous membrane will recover itself, and all the well-known evil consequences be avoided. Some cases get discouraged; they have to keep at their every-day employment, and perhaps suffer from troublesome post-operative rhinitis. But my experience teaches that all these troublesome cases can be cleared up if they will persevere. One must remember that good results are not gained until all tenderness and inflammation have left the mucous membrane. Of this one may be certain, but in closing let me say that as along all scientific lines great advances are yet before us: and this, while it keeps us humble, at the same time creates a zest for continuous inquiry.

SANATORIUM TREATMENT AND EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS.*

By ERNEST WILLS, M.D.Lond., M.R.C.P.Eng.,
Physician to Calgary Sanatorium, Calgary, N.W.T.

Tuberculosis is the most important disease in medical science to-day. It is needless to quote in detail the statistics showing its universal prevalence, and I will only remind you that at least 20 per cent. of the total deaths of the world are caused by the tubercle bacillus; 1,000 die annually of the disease in Montreal and 8,000 in Cannda, while the number in the Dominion of those still living and suffering from pulmonary tuberculosis, although given as 40,000, is probably nearer 100,000. Thousands are suffering from tuberculosis in whom it is never recognized, as well as a large number in whom it is not diagnosed until a late stage, and therefore not recognized to-day. Since these figures are universally applicable, with a great percentage of disease and deaths always obtaining in direct ratio to the size and overcrowding of cities, it is not overestimating the importance of tuberculosis to say it is the most important question in medicine. Fortunately, since Koch isolated the bacillus and proved its relation to the disease in 1882, great progress has been made, not only in its pathology, but also in its treatment. The possibility of the arrest of the disease and a practical cure is no longer a matter of doubt, and the best means of securing this and making it permanent is sanatorium treatment. Sanatorium treatment is the best therapeutic method for all stages of the disease, but that it may be of greatest service and may show quick and permanent results an early diagnosis of the disease is urgently called for. After referring to some points of sanatorium treatment, your attention will be drawn to some of the more general and constitutional, as opposed to the purely pulmonary, symptoms of assistance in arriving at a diagnosis while the disease is yet in an incipient stage.

Sanatorium treatment may be carried out anywhere, provided you have your sanatorium and a physician who has studied the varied principles of the treatment which should be given. It is a mistake to suppose that any case, if the essentials of treatment are observed, will do well in any climate, for there are a number of cases, most of them of slow, insidious onset, chronic yet progressive, which nothing but the invigorating dry air of a higher altitude will permanently benefit;

*Read bfore a meeting of the Ottawa Medical Society, April 22, 1904.

however, the discussion of this point must be reserved for a future paper. It remains, then, that the majority of early cases will improve anywhere under efficient sanatorium treatment, and it is to be hoped that in the near future there may be in each province, if not in each county, a sanatorium for the people in its vicinity; not only for their treatment, but as a centre from which will emanate a more accurate knowledge of the simple precautions for the prevention of the disease.

What, then, are the factors in sanatorium treatment, and wherein lies their importance? The factors are open air, suitable food and rest; given the proper exhibition of each of these three, the greatest of them is rest. Only under efficient supervision can they be used in their right quantity and proportion, and it is to the supervision and direction possible only in a sanatorium that the splendid results so commonly obtained to-day have been made possible. Just as genius has been defined as an infinite capacity for taking pains, success in sanatorium treatment can only be obtained by a persevering attention to detail.

Virchow long ago pointed out that in tuberculosis the vulnerability of the tissue is the important factor in the disease. To remove this vulnerability is our aim; so building up the system by fresh air, feeding and rest, that the blood and tissue cells may destroy the enemy, and resist the entrance of new ones. This resistance to, and destruction of, bacilli is of continual occurrence in normal health. Experiment by exposure of culture media wherever there are numbers of people, but especially in crowded cities, railway cars, dark offices, tenement buildings, etc., shows the presence of numbers of living, active bacilli, in the dust, and in the air. These bacilli we are continually inhaling or swallowing with our food. Why do we not all contract tuberculosis and die? The majority of us are invulnerable, because our tissues, vigorous and healthy, resist the bacillary attack, and afford them no suitable nidus.

To ensure the desired results sanatorium residence is necessary, as despite the apparent simplicity of the treatment, this is indeed a frequent stumbling block. It is apparently so simple the patient thinks he can treat himself, at any rate he can follow the directions for treatment of his physician—he cannot, and does not. It is too well known how difficult it is to get directions followed at any time: it is harder with the phthisic than any other patient owing to his neurotic condition combined with his extraordinary optimism. He always feels better than he is, he tries to do too much, he over-exerts himself, he brings on a relapse. This brings us to a consideration of the important factor, rest. It is unnecessary to go into detail as to open air and food, except to say that the more the patient

is in the open air the better, the majority can be day and night in it, live in it, sleep in it. Given properly constructed buildings, porches or tents, food of good quality, easy of digestion, of considerable variety and great quantity, with a preponderance of cream, butter, milk and eggs, is all that is required; but rest is a more complicated factor, needing some further consideration and emphasis—rest must be mental, physical, organic.

Mental Rest: Mental rest, free from irritation, worry and interruption.

Physical Rest: Physical rest to conserve all the energy, and strength for organic needs.

Organic Rest: Organic rest that as little call as possible may be made on nervous system for administrative functional energy or for repair.

Removal from his home to a sanatorium ensures rest by freeing the patient from the numerous domestic and social worries inseparable from home life. The noise, the daily home events, which are nothing in busy health are most trying to a debilitated invalid—business news, constant visits from sympathetic friends, all these detract from the necessary rest. Not that the isolation of a patient on his back in dull, depressing solitude is advocated. Far from it: a purely vegetative existence varied only by overfeeding and sleep is the other extreme, which must be just as carefully avoided in all but very exhausted cases. No! The patient removed from home life must have some mental amusement and occupation to prevent stagnation or discontent. The provision of these is one of the chief studies of the sanatorium physician; he must cater for the mind as well as the body, and has to study the idiosyncrasies of each patient. No tonic medicines can affect the body so powerfully and so beneficially as a cheerful, contented and occupied mind. "Laugh and grow fat" applies as much to the sanatorium patient as his healthy brother.

Suggestion is a therapeutic agent of the greatest potency. Why should its exploitation be left to faith healers, Christian Scientists, quacks and fakers? By inducing a hopeful philosophic attitude, fortunately an easy task, in the usually optimistic patient, by discouraging discussion of symptoms and feelings with fellow sufferers, providing instead other topics of thought and conversation, the patient is distracted and rested. Patients usually take readily to the necessary discipline and habits of the Sanatorium when they are tactfully enforced, and these habits remain with them, and when finally recovered they return to their homes and become there foci for the dissemination of hygienic lore and of incalculable assistance in the prevention of disease. Meanwhile the nervous system, relieved of mental drain from worry, anxiety and apprehension, can be

drawn on for the needs of the mechanism. From lessened mental tension and diminished cerebral congestion better sleep is obtained, and the most favorable time for repair and renovation of tissue is increased.

Patient's Rest: By cutting off the injurious exercise which the patient so often takes, under the mistaken impression that exercise and strength are almost synonymous, a continual drain of strength is stopped, and an injurious combustion shut off. The overtaxing of various organs ceases, the heart is relieved, the venous congestion is removed, the hitherto embarrased stomach, liver, kidneys, etc., perform their functions more naturally, having only the daily housekeeping of the body to attend to without work induced by external labor: there is some chance of keeping pace with the waste from fever, and since undue exercise and excitement are among the causes increasing fever, the fever itself diminishes and lessens combustion. After a time, with this rest, open air and food, the patient regains tone, puts on flesh, gains strength and begins to resemble his former self, now is the time for great caution, so much rest is no longer necessary, but most relapses are due to an over-estimation of improvement already obtained and a too good indulgence in exertion—the thermometer is a never failing guide. When diurnal temperatures are taken, it is surprising how seemingly trivial a thing will cause an elevation of temperature—a friend's visit, an animated or too prolonged conversation, a game of whist, an overtaxed walk or ride, are among frequent causes; they must be guarded against, the patient must be gradually got into training, be weaned from his rest, which has been of such assistance to him, by graduated exercise, his muscle must be toned, his heart enabled to bear extra work, his lung expanded and opened up, until he is no longer soft, but fit and hard, in good training condition.

By the methods of which I have given you a sketch, 50 to 75 per cent. of cures have resulted in early cases, 25 to 35 per cent. in less favorable cases, and most advanced cases have been improved.

Early Diagnosis: An early diagnosis is the pressing need that more good be done with less expenditure of time and money. It is in the power of the profession by this means alone to do more than can be done in any other direction for the prevention of tuberculosis, since by early treatment of cases they need never advance to excavation with profuse suppuration and expectoration, and the practically sole cause of the spread of the disease, the discharge of bacilli will be enormously diminished. At present most cases when diagnosed are indeed in consumption, and yet this is not so much to be wondered at, for the detection of primary consolidation of a

few scattered lobules, surrounded by larger area of normal spungy lung, is no easy matter by physical examination, since the respiratory symptoms in the incipient stage are few and ill-defined. When these symptoms become well marked and easy of recognition, the so-called first stage has already passed into the second and third.

Use of the Terms First, Second and Third Stages.

Indeed it is time the stages consolidation, caseation and cavitation, as marking those periods in the disease, be given up, as a matter of experience, both in living and dead subjects; although, of course, consolidation is the first stage, all three are frequently concurrent since fresh foci are constantly appearing. Thus there is a mixture of all stages, just as successive crops of eruption will appear in chicken-pox, and the patient may show at the same time papules, vesicles, pustules and scabs. It would be better, therefore, if they were classified as incipient, advanced, very advanced, and the area of the disease were taken as a measure of its gravity rather than the condition of disease discoverable at one or more places, *e.g.*, locate the disease as apical, or present in upper lobe, lower lobe, unilateral, bilateral, etc. To return, since the diagnosis by physical signs is so difficult, the importance of the due recognition of premonitory and constitutional symptoms is proportionately valuable. It is to these that I would direct your attention, since their recognition in connection with other aids to be mentioned will render an early diagnosis comparatively easy and certain; and if this be followed by appropriate treatment the percentage of arrest, and in all but very acute cases, will be nearer 100 per cent. than 50 per cent.

A want of consideration of these premonitory and constitutional symptoms, a failure in taking a sufficiently broad view of the disease has been at the root of the matter in the late diagnosis of the disease. In our general hospitals, in the clinical demonstrations, whereby we are taught the physical signs, we see only the advanced cases; the incipient cases do not come to hospitals, except occasionally to the out-patient department: hence we come to regard the disease as a type characterized by the classical terms, cough, hectic night sweats, and hemoptyses—whereas if we look upon pulmonary tuberculosis, as it really is, as an acute specific of slow onset, whose premonitory symptoms precede by a considerable period the typical signs of its later lesions, we shall better appreciate what we so often meet in general practice. Do we not often wait for the classical trio cough, night sweats and hemoptyses, then exhibit for a time cod liver oil, hypophosphates, guiacol,

etc., etc., etc., and finally, finding we are losing ground, send the patient away for change of air, or recommend him a sanatorium, and a sanatorium instead of a patient with some wasting fever and incipient apical disease, receives one with apical and basic, perhaps bilateral, mischief, an overworked heart with weakened muscles, a deranged digestion system, and worn-out organs generally. It takes years of anxious supervision ere such a patient is finally restored to comparative health with permanently damaged, though no longer tubercular, respiratory system, and thus for want of early diagnosis much time and money has been expended. Early diagnosis, followed by early treatment, would have procured early arrest and permanent cure at comparatively small cost, and an immense saving of reputation to ourselves.

When patients have cough, night sweats and blood spitting, except for their natural reluctance to believe that they can be victims of the great white plague, nine cases out of ten have a shrewd suspicion of the nature of their ailment, although they shrink from admitting it, and readily accept any other explanation of their trouble. But the majority of cases of pulmonary tuberculosis of insidious onset can, and should be, diagnosed by the physician before the appearance of the fatal cough, night sweat and hemoptyses, often without two of them, sometimes without one of them.

Latent Cases: Latent cases are largely the cause of the difficulty of early diagnosis, and the more so because since many of them never become anything but latent we are misled. Symptoms appear, and without any specific treatment disappear without raising any suspicion of their true portent. The fact is, the natural tendency of tuberculosis is to get better, or in other words naturally the chances are that the patient will overcome the disease. What proof have we of this? The strongest proof of this is the constant presence in autopsies in cases known to have died from other diseases of healed tubercular lesions, cicatrices, calcified nodules, contracted cavities, etc., and not known to have had any recognizable phthisical signs. The percentage of cases in which such lesions occur is certainly 33 per cent., and has been placed as high as 50 per cent. We may infer that in numbers of people who live through the ordinary span of life, or to a good old age, consolidation of the lung extending even to caseation and cavitation occurs, but arrest and cicatrisation follow, owing to their acquiring additional resistance after the incidence of the disease and they are credited only with a passing cold, or grippe, or fever, or neurasthenia, and their tardy convalesence is never attributed to its real cause. Let the same trouble attack a patient having less vigor, less resistance, and tubercle bacilli

gets the upper hand, the supposed cold or grippe, or neurasthenia passes slowly into an unmistakable consumption. These are the cases easy to overlook, and which need not be allowed to pass if one is always on the watch for insidious onset, if one does not wait for a hectic, emaciated patient before suspecting the presence of tuberculosis, or have to see an attack of hemoptyses before examining the lung. Many a strong, powerfully built man, with large chest measurement may, through some want of resistance, temporary, perhaps, be a victim of the disease, many a stout, florid woman or vigorous-looking, energetic girl, through overwork, and a series of colds, or an attack of catarrh, may have so lowered their vitality as to give the bacillus the necessary opening for its commencing attack. An ever-ready suspicion and thorough examination are the aids to early diagnosis and safeguards against that list we all have to acknowledge, privately or publicly, as cases we might have recognized.

For the convenient consideration of the early diagnosis it is well first to enumerate the general symptoms calculated to arouse our suspicion: secondly, to consider the methods of examination by which we would confirm or dispel these suspicions.

General Symptoms and History: General symptoms fall, roughly speaking, into a group of five divisions—constitutional, digestive, circulatory, nervous and respiratory, although they naturally are a good deal mixed up and overlap each other. Referring to the symptoms as a whole one may see that the chronicity or insidious onset of phthisis is one of the most striking features of the disease, and other causes of disease having been excluded long continual symptoms should ever awaken the physician's suspicions.

Constitutional symptoms comparable to the premonitory symptoms of an acute specific disease are wasting, anæmia, loss of energy, absence of appetite, occasional fever, long continued debility following grippe or any of the acute specifics, especially measles, typhoid, scarlet fever—of these, chronic wasting is an early symptom, frequently preceding by a considerable space of time cough or noticeable fever, and is more often due to phthisis than any other chronic disease. It is frequently associated with anæmia. Marcus Beck found tuberculosis in fifty per cent. of chlorotic girls; these, as you know, are not usually wasted, but the association of anæmia and wasting in the absence of Bright's disease is doubly suspicious.

Fever: High fever often not apparent is an early and valuable sign, and if constant only for a part of every day is strongly indicative of incipient tuberculosis: the form of fever I shall refer to later.

Long continued debility, loss of energy, always feeling tired, etc., is another symptom almost as early as wasting, and sooner or later associated with it. How often the patient complains that he has no energy, has not felt himself for a long time, always feels tired, and not up to his work, etc. Loss of appetite is frequently bracketed by the patient with his feeling of weakness, and is therefore placed among constitutional symptoms and is mentioned here for that reason as well as in digestion division. Long continued debility after grippe or acute specifics, or a long drawn convalescence from such troubles, accompanied as they are by material lessening of powers of resistance should always cause incipient tuberculosis to cross one's mind. In the condition of lowered vitality present in a post-febrile period, all organs are under par and the seat of more or less fatty degeneration, they afford excellent soil for tubercle bacillus and the inactive lung, the seat of election for the organism, is its natural resting place.

There is no special phthisical appearance to be recognized, seventy-five per cent. of those suffering from the incipient stage appear in the best of health, as may be seen in any sanatorium as well as in practice.

Digestive: Functional dyspepsia, more often taking the form of hyperacidity but very varied in its character, is more frequent than any other general symptom except gradual wasting and debility. So much so that numbers of cases of incipient tubercule are located for a long time as digestive, the stomach is supposed to be the peccant organ, and the dry cough only a dyspeptic symptom. The digestive symptoms may, however, take varied forms, *e.g.*, loss of appetite, pains before or after food, constipation, or diarrhœa where there is intestinal infection and vomiting.

Vomiting is a not infrequent symptom brought on in some instances by a dry cough owing to gastric irritability or congestion and weakening of nervous control. Functional derangements by their interference with digestion and assimilation are in their turn potent causes of wasting and causing a sense of weakness and debility at an early date.

Circulation: An unduly rapid pulse, especially a pulse going to 100 or over in the evening, most frequently obtains. A small heart is common in phthisis and a cardiac erethism with undue irritability, together with especially well conducted heart sounds, owing to consolidation of lung not otherwise easily distinguishable, are frequently signs which may be the most prominent incipient symptoms, and should lead us to think of phthisis and make a searching examination. With this cardiac irritability goes an undue sensibility to cold and draughts with slight chills or shivering quite apart from fever.

Nervous System: The mental attitude of most phthisical patients is one of inexpressible hope, but if there is definite mental derangement the form is usually that of melancholia. Of the more every-day nervous symptoms neurasthenia connected with debility is met with, and looked upon as the disease, when it is only a symptom of a more serious one, viz., tuberculosis. Migraine occurs in phthisical patients as well as in other members of the family not themselves tuberculous.

Respiratory System: Symptoms of respiratory system are spoken of last, not as of least importance, but because since they more readily draw attention to the disorder under consideration it is well to emphasize the others first.

A chronic cough, or frequently recurring colds from slight causes, are indeed present in one form or other in the majority of cases. The cough is usually dry and hacking, it may occur only on rising in the morning, or any exertion causing an extra deep breath, and it is often looked upon as insignificant by the sufferer and unworthy of mention, but in connection with chronic wasting debility, functional dyspepsia, a rapid pulse, etc., is a very strong confirmatory sign. Various catarrhs—nasal, pharyngeal, laryngeal, bronchial—may precede phthisis or be a premonitory symptom. Certain it is that degenerated mucous membrane, the seat of catarrh, is in a condition unable to cope with the tubercle bacillus, and impotent to prevent its passage. A patient subject to catarrh must have lowered powers of resistance.

Pleurodynia and pains in the chest, vaguely spoken of as rheumatic, are of frequent occurrence, but of the gravest significance is the presence of pleurisy, especially so-called simple or idiopathic pleurisy: it is most probable that all such cases are of tuberculous nature. Pleurisy may be primary lesion or a recrudescence of phthisis in a quiescent case, but certain it is that eliminating rheumatism, cardiac disease, Bright's disease, and new growth for double pleurisies, a large percentage of pleurisies afterwards develop tuberculous lung trouble, and it has frequently been shown *post-mortem* that those dying from other diseases, or from accident, have been found to have unsuspected tuberculous lesions of the pleura or lung, when only supposed to have idiopathic pleurisy. Subsequent history of cases of acute pleurisy, while forcing us to conclude that in two-thirds it is a curable disease, is not antagonistic to this view since it is only in accord with our experience of local tuberculosis, while Bowditch, of Boston, has shown that in ninety cases of acute pleurisy thirty-two died of or had phthisis, a percentage large enough to show what an important role tuberculosis plays in this affection.

Examination: Having enumerated the symptoms, what can

be done to ensure a thorough examination? A history of the case, family and general, is the first step, not with a view to establishing heredity but a presence of phthisis, from which infection may have taken place, or the occurrence of neurotic troubles, such as epilepsy, migrain, asthma, etc., go to show the existence of a low vitality and small power of resistance. The personal history must be investigated for previous illness in the train of which phthisis may have followed, or for pleurisy, colds, or lapses from health, which may have been antecedent, or previous attacks of phthisis. Having thoroughly investigated the history, the examination should include thermometric, chest and sputum examination, and be followed, if necessary, by the use of tuberculin and animal inoculation for diagnostic verification.

The careful use of the thermometer is the sheet-anchor for the discovery of tuberculosis, and more than any other method leads to success when the vagaries of its temperature are borne in mind. The typical temperature is an evening rise of one half to two degrees. While a temperature of 99.6 is sometimes met with in health, it is well to regard with suspicion anything above 98.6, and a persevering use of the thermometer at two hourly intervals for two days often reveals a transient rise which would otherwise have been overlooked. It should not be forgotten that occasionally cases are met with showing an inverted temperature, that is a daily morning rise and evening fall, a reversal of the ordinary type. A subnormal temperature, especially in the morning, is very often present, and is of almost as great value as a diagnostic sign, if of constant occurrence, as a rise of temperature.

Chest Examination: It is unnecessary, and would be out of place, to enter into an extended discussion of physical signs and examination of the respiratory organs, but some valuable early signs may be mentioned together with location of early disease most commonly found.

A truer estimation of the lung expansion can be obtained by palpation than by the eye if the hands are placed first singly then simultaneously over the apices. During auscultation the earliest signs are a jerky, divided breath sound, well prolonged expiration, harsher than that of the other side, or sometimes in chronics puerile breathing, compensatory in origin, may be found in the opposite healthy lung. Short dry clicking rales are of early occurrence, and during inspiration after a cough crepitation may be obtained, due probably to opening up of collapsed air cells, which at other times is not present. Signs of past and present pleurisy should be sought for and the abnormal condition of heart sounds should receive due significance. While the apex is the commonest spot for the first lesion, primary

trouble is sometimes found in the lower lobes and a consolidation at the inner end of the second or third intercostal spaces is frequently overlooked. Perhaps the most valuable auscultation is made by listening over the lung at the part uncovered by the [illegible] his hand over the opposite [illegible] g, jerky breathi[illegible] [illegible]es will be first detected here.

Sput[illegible] [illegible]xamination for Tubercle Bacilli: If there is any sputum [illegible] be obtained its examination is of the greatest value and the p[illegible]sence of bacilli removes all doubt. The examination must not [illegible] be careful, but may have to be repeated and extended. Bacilli are not always present in advanced cases, much less in early cases, and their absence is no proof of the absence of the disease, but their absence is often only apparent, and repeated examination or examination of concentrated or centrifugated sputum may reveal their presence. The method of examination I will not go into since it is probably familiar to most, and the little that I could say in this paper would be of very little use to others.

Tuberculin: If still in doubt after a thermometric, a chest and sputum examination, there remains a method of the greatest value, and its safety, despite a vague idea that it may be dangerous, is on a par with its certainty, viz: the injection of tuberculin. Its value depends on the febrile reaction with pains in the chest, feeling of malaise, etc., which follows its use in tuberculous cases. The method used should be as follows: The temperature should be taken for two days at two hourly intervals to see if there is any rise of temperature, finding none on the second day, because a reaction, if any, usually comes on in twelve hours or so. One half milligram of tuberculin is injected hypodermically with aseptic precautions. If there is no result after two days, the dose should be increased to two mill. and so on up to five mill., which last dose should be repeated once. If there should still be no reaction there is little probability of tuberculosis, but if there should be a reaction the diagnosis admits of no doubt, and appropriate treatment, preferably sanatorium, should be commenced.

Trudeau has used this method in, I believe, one thousand cases and never known any untoward result. Any idea of injecting tubercle bacilli into the system is owing to a misconception of the nature of tuberculin, which, owing to the method of preparation with glycerine, healing in the auto clave to 100 degrees Cent., and subsequent filtering through Pasteur filter, and finally boiling cannot possibly contain any organism. It is perfectly safe, and in proper doses and with cautious use cannot do harm.

If still there be any doubt, in certain cases there is a last

resort, viz., animal inoculation, inoculation of guinea pig with sputum, and after six weeks an examination of the guinea pig to see if any tuberculous lesion has developed.

Finally, I would repeat that the chronicity of phthisis renders it in most cases a probable one by principles of exclusion, when no other reason is found for an associated train of symptoms, such as cough, wasting, debility, dyspepsia, etc, that a thorough examination of temperature, chest, sputum and reaction to tuberculin will usually enable us to come to a confident diagnosis, that by appropriate treatment by open air, food and rest, at home or in a sanatorium, the disease may be arrested and cured, and that finally we may thus in time hope to enormously lessen, if not stamp out, the disease.

Selected Articles.

ABDOMINAL OPERATIONS DURING PREGNANCY.

Every medical man, whether engaged in general practice or in doing abdominal surgery, has probably met with instances of serious disease of one or other of the abdominal organs, complicating pregnancy. If, however, I may judge from my own experience, first of some years of general practice, and subsequently of ten years of abdominal surgery, such cases as urgently require operative interference are less common than one might *a priori* have expected. Probably the most frequent complication of the kind occurring during pregnancy (or perhaps it would be more correct to say that the pregnancy complicates the previously existing condition) is either an ovarian cyst, or fibro-myoma of the uterus. Most surgeons who do much abdominal work have been at some time or another called upon to remove such a tumor or tumors, which would otherwise obstruct labor. In this country (Australia) one occasionally meets with instances of hydatid cysts occupying the pelvis, which call for treatment in the same way. I have seen cases of renal calculus which, by causing symptoms, were discovered during pregnancy, and the question had to be decided as to whether immediate removal should be practised or delayed until after confinement.

In one instance I have been callled upon to deal with a carcinomatous growth of the gut, causing obstructive symptoms. We may roughly classify all the instances above referred to as *mechanical* conditions, and each case must be judged upon its merits. There is, however, an entirely different class of cases, which, fortunately, is not commonly met with during pregnancy —I mean those instances in which an acute infective process attacks certain organs, such as the gall-bladder and bile ducts, the vermiform appendix, and, more rarely still, the Fallopian tubes.

Under such conditions, *i.e.*, an acute infective cholecystitis, an acute appendicitis, or an acute infective salpingitis, are we to wait, temporise, and trust that the acute symptoms will subside and permit the pregnancy to terminate normally? or should we deal at once with the pathological condition, removing the cause by operation, and leaving the physiological condition to go on to its natural ending?

Not so very many years ago it was generally held that surgical interference with pregnant women was to be avoided

under almost all circumstances. Even now, one meets instances in which pregnant women, who are suffering agonies from neuralgia, induced by carious teeth, are solemnly warned that the operation of extraction or "stopping" will probably induce premature labor, and they are left to go on with a prolonged pain and discomfort, which might easily be removed without any untoward result. It is only of late years that the safety and generally good results of major abdominal operations in pregnant women have been demonstrated. I do not mean that we should choose to operate during pregnancy if it can with safety be avoided. But in such instances as the acute infective conditions above referred to, which in themselves threaten life, there can, I think, be no doubt as to the advisability of operative interference. This fact was particularly brought home to me by the case of a gangrenous appendicitis recorded below. This patient had been seen by a surgeon and a physician, both of large experience, and for whose opinion I have the greatest respect; but because the second and third attacks of appendicitis occurred after the commencement of pregnancy, these gentlemen negatived operative interference, and advised waiting. This was, I believe, a decided error in judgment. The verdict should have been reversed. Had this been so, the patient would been saved great risk to life, for, although she did recover perfectly, and the pregnancy was in no way interfered with, the risk which both she and her child ran was infinitely greater than it would have been had the operation been done in the "quiet interval" after either the second or third attack.

The conclusion, therefore, to which I think we must come is that all cases of acute disease, involving either the appendix vermiformis, the Fallopian tubes, or the gall-bladder and bile ducts, during pregnancy, should be treated as though the pregnancy did not exist. By so doing I believe we shall be acting in the best interests of our patients and their unborn children also. I do not propose now, at all events, to refer at length to those cases which I previously spoke of as *mechanical* complications during pregnancy. It has been abundantly demonstrated that the operations both of ovariotomy and myomectomy can be safely done on pregnant women without interfering with the pregnancy.

Mrs. M., aged 30 years; children, four, at full time; no miscarriages. Patient was seen, in consultation with Dr. McMaster, of Penrith, near Sydney, N.S.W., on December 26th, 1901. She was then suffering from an acute attack of appendicitis; had been ill for five days. There was severe abdominal pain, chiefly localised in right iliac region—marked "guard tension" of abdominal muscles on right side of abdomen. Uterus

enlarged to about the size of a six months' pregnancy. The bowels had been that day relieved as the result of an aperient and enema. *Vaginal* examination confirmed the fact of the six months' pregnancy, and showed the presence of an inflammatory mass high up in the right posterior quarter of the pelvis, which was continuous, with a tender swelling in right iliac region. Temperature varied (as shown by chart) between 99° and 103° F. Uterus quiet; no abnormal contractions.

History—The patient had had three previous attacks of undoubted appendicitis. The first, two months before the present pregnancy, *i.e.*, eight months ago; this was a slight attack: then another more severe attack four months after the first attack, and a third, two months after the second, *i.e.*, when she was about four months pregnant. During the interval between the second and third attacks the patient had consulted a surgeon and a physician in Sydney, and had been advised, *because she was pregnant*, that no operation should be undertaken.

On December 29th, 1901, the patient came to Sydney and was admitted to a private hospital. She stood the journey of forty miles in the train very well.

Operation, December 30th, 1901.—Under ether anesthesia, usual oblique incision in right iliac region was made: the deeper layers of the abdominal wall were edematous. (In this instance because of the altered physical conditions due to the pregnancy the incision was not made at the outer border of the rectus sheath, but through the oblique muscles, the fibres of which had to be divided, as simple separation did not give sufficient room.) There were adhesions involving the colon, omentum, small intestine, and appendix. The right half of the broad ligament was greatly thickened and edematous, as well as the right ovary and Fallopian tube, the ovary being almost black in color. The appendix when separated and stripped from surrounding adhesions was found to be swollen and gangrenous It was removed close to the caput cecum coli. The right ovary and Fallopian tube were also removed, the separate vessels being picked up and ligatured and the top of the broad ligament over-stitched with catgut. A small gauze drain, with gutta percha tissue round the middle portion, was placed in position, and the abdominal incision closed in layers, catgut sutures being used.

Convalescence was quite uneventful, temperature never reaching 100° F.

The pregnancy went on to full time, and the patient was safely delivered of a living child, the line of incision remaining sound.—E T. Thring, F.R.C.S. (Eng.), Sydney, in *The Australasian Medical Gazette.*

SOME IMPRESSIONS OF THE RECENT CONGRESS OF GERMAN SURGEONS.

By DR. ROSWELL PARK.

Editor *Buffalo Medical Journal:*

Sir,—It has occurred to me that a brief account of the meeting of the German "Gesellshaft für Chirurgie," or Surgical Association, whose sessions, extending over four days, have just been completed, might be of some passing interest to your readers. This is the thirty-third annual meeting, therefore it will be seen that it is an older institution than our American Surgical Association. It is, however, in one respect, less select, since its membership is unlimited, and it is open to all those who confine themselves to surgical work, whereas the American society is limited, at present, to one hundred and twenty-five, it being the intent that only those who have already made their mark in surgery shall be considered as candidates. There are advantages in each way of doing things. For my own part I have always thought that a judiciously selected but unlimited membership list brings the greatest good to the greatest number. In this matter, however, I have so far been in the minority, though I have urged the "open door" policy.

The founders of the German society were Langenbeck, Bilroth, Folkmann, Bruns, Bardeleben, Simon, Gurlt, Thiersch and Esmarch, and a picture of these men, whom we all delight to honor, hangs in the surgical clinic of the General Hospital. I have had the honor of being one of the four or five regular American members for a number of years, but have attended very few meetings. These are held during the week following Easter, which is vacation time in all the German Universities, so that a large gathering is always possible. There are some four hundred and fifty members, and the program for the meeting included about one hundred and fifty papers. Thus it will appear to be an exceedingly active body of men. All of the surgeons of whom we ever hear belong to it, as well as many others.

Meetings are always held in Berlin, since here the society owns its own home. It stands on the grounds of the University Surgical Clinic: has an auditorium that will seat nearly five hundred, a very valuable library, numerous portraits, a museum, and all that can ever be needed for its purposes. The building, not including the land, cost one hundred and twenty-five thousand dollars, of which amount the grandmother of the present Kaiser contributed a very generous amount. Here meet numerous local and more national medical societies; the Langenbeck

House, as it is called, is a sort of national surgeon's headquarters, somewhat corresponding to the Royal College of Surgeons of London: only the society has nothing to do with licensing or governing the practice of surgery.

Here, too, met during the past week the German Association of Orthopedic Surgeons, the meeting lasting only one day, under the presidency, this year, of Dr. Heusner, of Barmen. They had a program replete with interest, the principal subject for discussion being contractures of joints, while congenital dislocations, especially of the hip, were treated of by a number of writers. Lorenz, of pseudo-American fame, was not present. I was not a constant attendant, but I could not gather that *his* method of reducing congenitally displaced hips has won any great esteem over here. To be sure, however, the newspapers here are not generally on his side: neither is to be taken very seriously—at least not favorably—by the men here with whom I have talked.

To this orthopedic association belong about a hundred members. I note that among these the principal *operating* orthopedists belong to the surgical association, while those who work mainly or entirely with massage, apparatus and gymnastics form a sort of group by themselves, as in the American Orthopedic Association. It is curious how men seem amiably separated according as their tastes and acquirements lead them to rapid operative or slow non-operative methods. The operative method of treating lordosis or angular curvature was, however, not mentioned; were it still received with favor I think it would have been otherwise.

Inasmuch as the capacity of the auditorium is limited practically to the membership, admission to the surgical association was given only to members and invited guests; and then it was overcrowded, even at the opening session. The president, this year, was Prof. H. Braun. The first papers were by Körte, Franz, Riese, Lexer and Hoffmann, and concerned the surgery of the arteries and their surgical anatomy, especially in the osseous system. The most interesting portion of the morning was the demonstration by Hoffa, who is well known to us as an orthopedic surgeon, and by his book on fractures and dislocations, of some twenty cases, selected out of a large number, in which he had practised tendon plastic or transplantation methods. His demonstration was most interesting and most convincing as to the value of the proceeding in many instances of paralytic deformity and loss of function.

The features of the first afternoon were papers on the method of preventing collapse of the lung during operations within the thorax. Sauerbruch, of Breslau, exhibited a pneumatic cabinet in which may be enclosed the head of a patient and the anesthetiser, while the air pressure is raised a little; or within which

conditions may be reversed, so that the head of the patient is outside, while the operator and his assistants operate on the thorax from within the cabinet under a slightly reduced barometric or manometric pressure. The former is a temporary matter and submits the anesthetiser to a condition like that under which men work in caissons. The latter is quite new and experimental.

Mikulicz, in whose clinic this cabinet has been once tested, reported the loss of his patient. A much simpler method of establishing similar conditions was described by Petersen and Brauer, of Heidelberg, who also reported the loss of the only patient operated by their procedure. Both methods were demonstrated after the meeting, upon dogs, and both beautifully illustrated what was claimed for them—*on animals*. Whether either of them is practical or practicable remains to be shown.

The balance of this afternoon session was devoted to the usefulness of the X-rays in malignant disease, and to the nature of this disease. Petersen read a paper on the inoculation and implantation of cancer, but made it no clearer than before that the surgeons have been much more ready to accept the parasitic theory than the pathologists who work only in the dead-house and at the desk, *i.e.*, that cancer is an infectious disease. Other opinions to the same effect were distinctly voiced by various speakers in public and private.

What can be done in the treatment of these cases by Röntgen rays and by radium was then illustrated by Lassar, the eminent dermatologist, who exhibited a remarkable collection of some forty or fifty patients thus treated. They all were cases of superficial lesions, some original, some recurrent. Of some of them he had microscopic sections, while of all he had beautifully colored wax models, showing the condition before commencing treatment. The results were beautifully demonstrative of the benefits obtainable in certain cases, especially the inoperable. And yet Lassar is himself unwilling to speak of them without great reserve—which was quite noteworty. I do not think such a demonstration could be made anywhere else in the world; yet in spite of this and in the face of all these facts, there was a caution in his speech which should find many imitators. With us the temptation is too strong to regard two or three apparent successes as a final demonstration that X-rays will *cure* cancer. Nor was any attempt made to show that these lesions are not best treated by a clean excision, especially when seen reasonably early. Lassar, moreover, took pains to set forth numerous instances in which little or no benefit accrued—for example, in epithelioma of the tongue, where the lingual lesion might perhaps improve, but the deep infiltration surely would progress. Nevertheless, he showed a number of

cases of recurring cancer of the breast, especially the disseminated and ulcerating forms, which had been greatly improved. Of radium he had but little to say, though that little was rather favorable.

The first evening was devoted to demonstrations with the projecting lantern. Krause, Lexer, and Hoffa all showed lantern slides, those of Lexer on the distribution of the blood-vessels in the bones being especially beautiful and exciting the greatest admiration. He injects the arteries with a mercurial preparation and then subjects the specimens to the Röntgen rays.

The second morning was practically devoted to the surgery of the upper abdomen. Kehr, who boasts that he has built up his little town of Halberstadt, reported on five new operations which he had practised on the biliary passages: *i.e.*, resection of both ducts and a hepatico-duodenostomy, hepato-cholangio-enterostomy, ligature of the hepatic artery for aneurism, gastro-duodenostomy after closure of the upper part of the duodenum, and implantation of a pancreatic fistula in the gallbladder with a subsequent gastrocystotomy. I find that by some of the German surgeons Kehr is not taken very seriously, while by others, he is—very seriously. Körte, of Berlin, had a most interesting paper on the relations of biliary and pancreatic diseases; Ehrhardt talked entertainingly about the peritoneal infections, which arise from the biliary passages, and the venerable Bardenheuer, of Cologne, spoke on pancreatic hemorrhages. He, by the way, some years ago wrote a large book on the traction or extension treatment of fractures, which, as everyone at home knows, is absolutely of American origin.

The balance of the day was devoted to a miscellaneous programme, which included many subjects, frequently illustrated with patients, and always with specimens or drawings.

The annual dinner was held at the Savoy at 5.30 p.m. In this respect our German friends set a good example. Only four speeches were made, and the company had separated by half-past eight. The advantages of such an arrangement are obvious.

The third day's session opened with a series of papers on bone surgery by a dozen different writers. This was followed by a sort of symposium on surgical diseases of the kidney, in which Kümmel and Krönlein dealt especially with tubercular lesions, and showed some remarkable specimens. Calculous disease received considerable attention. Ahrens reported a nephrotomy of a solitary kidney, while Barth showed a patient with horseshoe kidney upon which he had done an exploratory incision. Several writers then dealt with decapsulation of the kidney for Bright's disease—a method evidently not popular

over here, for, so far as I gathered, no one mentioned it save to condemn it.

The third afternoon session was devoted to the peritoneum, stomach and intestinal canal. Mikulicz discussed the possibility of increasing the resisting power of the peritoneum; Payr reported on mesenteric thrombosis following intraäbdominal operations, and numerous papers were read on ulcer of the stomach, cancer of the pylorus and intestines, and the operative measures to be instituted for their relief. The writers were of one accord in at least this respect—that all ulcerative lesions of the gastro-intestinal tract were best treated by operation of some kind.

The fourth morning session began with the apparently inevitable subject of appendicitis, which was discussed especially by Lauenstein, Federman, Cordua, Karewski and Sonnenburg. These are the men in all Germany who are, perhaps, most competent in this direction. Sonnenburg told me that he had himself operated on nearly eighteen hundred cases, which puts him on a plane with our best American surgeons, and entitles him to respectful hearing. He certainly has had larger experience with this condition than that of scores of his colleagues combined. During the session Brentano showed the specimen of a remarkable case of Hirschsprung's disease; *i.e.*, congenital reduction in length and enlargement of caliber of the intestinal canal. It came from a boy of fourteen, who suffered from coprostasis to such extent that at one single time twenty-seven pounds of fecal matter were taken away from him. During the final afternoon session a variety of papers were read, one of them on so-called chorion-epithelioma of the testicle, by Holländer, while specimens and drawings were as numerous as ever.

Prof. Krönlein, of Zürich, was elected president for the ensuing year. He will be a great improvement upon Dr. Braun, of Göttingen, the retiring officer, who is old, feeble, toothless and hard to hear or understand, and who seemed to have little power of preserving good order during the meetings.

Altogether the meeting has been to me one of great entertainment. There has been little new, and nothing of tremendous interest, but there has been evinced a notable degree of research work and those rare, germanic traits of industry and never-tiring zeal. I have been making comparisons with the similar meetings of our own American Surgical Association, and do not feel that we need consider ourselves one whit inferior in any respect. Our meetings are more dignified, the papers are equally scientific, and our members much less prone to indulge in personalities or slighting and even insulting behavior. My regard for German surgery was comprehensive enough before I attended this meeting. I cannot say that it has been particularly enhanced thereby.

The American surgeons certainly lead the world to-day, and can teach their foreign colleagues many things. Some of the most progressive and least prejudiced of the continental surgeons are beginning to realize and acknowledge this, and a number of them are coming over to our World's Fair. Let us welcome them and impress them so far as we can, but let us not repeat the Lorenz fiasco. After all it repays our students to come to the continent, for they may learn what to avoid as well as what to do. It seems to me that the greatest advantage attendant upon studying surgery in the German clinics is the frequency with which one may follow cases from the operating table to the autopsy room, where their perplexities are so often cleared away.

The Anglo-American Medical Society meets every Saturday night in the Central Hotel, when I had the pleasure of addressing some fifty of my fellow countrymen. Every American coming here to study should ally himself at once with this excellent organization, which can be of the greatest service to him. It is the only labor union I know of which serves to bring out the best work of the men who belong to it as well as of the various teachers in Berlin, who are anxious to do all they can to win the commendation and patronage of its members.

Berlin, April 10, 1904.

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, H. J. HAMILTON, C. J. COPP AND F. A. CLARKSON.

The Detection of Early Tubercle of the Lungs.

Owen (*British Medical Journal*) emphasizes the fact that phthisis is a disease of essentially intermittent or remittent character, and that if the lungs of young people were the subject of as much solicitude as their teeth, the prevalence of the intermittent and insidious onset of pulmonary tuberculosis would be more generally recognized. Very often what is considered the initial attack is really not so, and were it not for a hæmoptysis in some cases, we would have considered the illness as a temporary indisposition. In examining a patient Owen proposes, after inspection, a thorough auscultation, leaving percussion and palpitation till the last. The pitch of tubular breathing, heard in early tubercle of the apex, is nearly always low—much lower than in pneumonia. Harsh breathing associated with voice changes, is of more serious importance than harsh breathing without such changes. Vocal fremitus is of little use in the diagnosis of early lesions. Both light and deep percussion should be systematically practised. If the dulness is more marked with light rather than deep percussion, it is probably caused by a thickened pleura; if the reverse obtains it suggests a deep-seated consolidation. Moist sounds in a tuberculous lung do not necessarily indicate a breaking down of tissue, for they also accompany the earliest stage of the grey tubercle. Clicks at the end of inspiration are diagnostic of phthisis, but of themselves tell nothing definite of the condition of the lung. By making the patient cough we can eliminate the moist sounds due to bronchial catarrh. Measurement of the apices is also an important aid. F. A. C.

A Delicate Test for Arsenic.

Abbo, the director of the Hygienic Institute of Turin, found that a fungus, known as *Penicillium brevicaule*, would develop with great rapidity an odor of garlic when grown on any substance containing arsenic. He could detect, by this means, minute traces in flour, in the urine of patients treated with arsenic, and even in illuminating gas. The reaction was marked with the one-millionth part of a grain of the poison. This interesting mould grows well on potato, and as it is easily kept there is no reason why it could not be applied in private practice F. A. C.

Purified Antitoxins.

Antitoxin consists of serum-albumin and serum-globulin, and serum-globulin has been separated again into at least three compounds—fibrino-globulin, euglobulin and pseudo-globulin. For some time it has been known that the antitoxic bodies are not associated with all the elements which go to make up the serum. Pick found that the fibrino-globulin and the serum-albumin possess no antitoxic properties, while either the euglobulin or the pseudo-globulin contain all the antitoxin, depending upon the animal used and the germ inoculated. He found, for instance, that the diphtheria antitoxin from horse's serum is contained in the pseudo-globulin, while in goat's serum it is found only in the euglobulin. In the antistreptococcic serum from a horse both the antitoxin and the agglutinin are precipitated with the euglobulin. The practical application of these will be that the useless and inert substances can now be eliminated, and the serum administered in a more concentrated form. F. A. C.

SURGERY.

IN CHARGE OF EDMUND E. KING, GEORGE A. BINGHAM, C. B. SHUTTLEWORTH AND F. W. MARLOW.

Surgical Treatment of Nephritis.

The surgical treatment of nephritis has been receiving a good deal of attention of late, and a few words on this important subject about which we shall no doubt hear much more in the near future are deemed not to be out of place, but to be worthy of our consideration.

Attention seems to have been directed to this subject mainly on account of the beneficial results which so frequently follow exploration of the kidney in cases where renal pain, accompanied by hematuria or even pyuria, exists as the most prominent symptom, and where often the diagnosis of the existing pathological condition is only doubtfully presumed. Such a result has, undoubtedly, been most frequently observed in cases where a calculus has been diagnosed, but after thorough exploration has not been found, and yet subsequent marked improvement in the patient's condition has taken place.

In recent operations, and, likewise, in experiments, the part of the kidney which has received most attention is the capsule. This is, for the most part, an inelastic structure, and so when congestion of the renal parenchyma occurs, owing to an inflammatory process, the resulting distension is painful, and especially would this be so if, in addition, the capsule becomes thickened and sclerosed.

In acute nephritis Harrison has performed capsulotomy for the relief of congestion, and has compared the condition with an acute glaucoma. Likewise, in chronic nephritis Pousson has performed capsulotomy, comparing the condition with a chronic glaucoma. Complete capsulectomy is advocated by Edebohls in order to obtain fresh vascular supply in surrounding adhesions, and so overcome any mechanical anæmia and interference with the collateral circulation which may be brought about by a thickened and sclerosed capsule, the existence of vascular adhesions subsequent to such an operation having been demonstrated experimentally by Claude and Balthazard.

Cases treated successfully by capsulectomy have been reported by Jaboulay, who thinks that improvement following such operations occurs too rapidly, to depend upon newly established vascular supply, and advances the hypothesis that all these operations, whether of the nature of nephrotomy, capsulotomy or capsulectomy, produce a vaso-motor modification of the renal circulation as a result of traumatism inflicted on the sympathetic system situated in the renal pedicle.

Such operations have been undertaken with encouraging results in acute and chronic parenchymatous nephritis, and in chronic interstitial nephritis, but, so far, it would seem that the results have been the least encouraging in the acute parenchymatous form in which the indications for operation, as stated by Maraglians, are constant, severe, fixed pain, severe hematuria, and especially threatening anuria. F. W. M.

OPHTHALMOLOGY AND OTOLOGY.

IN CHARGE OF J. T. DUNCAN, M.B., M.D., C.M.

The Non-Operative Relief of Eye-strain for the Possible Cure of Epilepsy.

In the State of New York there is a special institution for the care exclusively of epileptic persons, known as the Craig Colony. In this colony are some eight hundred patients. The medical superintendent of the colony is Dr. Spratling. In 1892 he consented to an experiment being made in the relief of eye-strain in a number of patients. He selected 78 patients, and Drs. Gould and Bennett were allowed to correct the refraction of these patients, or rather of 68 of them, 35 men and 33 women

The following is the gist of Dr. Spratling's report:

The 68 patients, 35 men and 33 women, began wearing glasses

September 1, 1902, and with few exceptions continued to wear them until September 1, 1903.

A record of each seizure and its type was kept in each case by the physician in charge. Occasionally glasses were broken or destroyed as the result of an epileptic seizure, but they were replaced as soon as possible, always within a few days.

All physicians and nurses at the Colony understood that the test was of great value, and no one left a stone unturned to carry it out in the accurate and painstaking manner required.

The table of results presented shows the following:

1. The number of attacks each patient had during the three months prior to the use of glasses.

2. The number of attacks each patient had during the three months following the use of glasses.

3. The number of attacks each patient had during the six months following the use of glasses.

4. The number of attacks each patient had during the twelve months following the use of glasses.

FEMALES.

No.	NAME.	Number attacks 3 months before using glasses.	Number attacks 3 months after using glasses.	Number attacks 6 months after using glasses.	Number attacks 1 year after using glasses.	REMARKS.
1	M. A	59	50	119	230	Attacks less.
2	F. B.	9	14	25	66	Attacks increased.
3	A. B.	0	0	0	3	Attacks increased.
4	G. B.	5	10	19	35	Attacks increased.
5	M. C.	7	7	24	43	Attacks increased.
6	A. C.	79	165	204	346	Attacks increased.
7	L. C.	22	52	0[1]		Attacks increased.
8	L. DeR.	22	4	45	57	Attacks less.
9	K. D.	1	3	3	8	Attacks increased.
10	R. DeR.	0	0	0	0	No attacks in 15 months.
11	F. D.	0	0	0	0	No attacks in 15 months.
12	K. D.	2	5	9	28	Attacks increased.
13	I. D.	202	105	344	878	Attacks same.
14	A. D.	14	14	17	53	Attacks same.
15	C. E.	0	0	0	0	No attacks in 15 months.
16	N. E.	4	10	19	59	Attacks increased.
17	M. G.	36	42	73	164	Attacks increased.
18	M. G.[2]	6	0	7	16	Attacks less.
19	V. G.	1	0	0[2]	3	Attacks increased.
20	A. H.	17	23	36	107	Attacks increased.
21	I. H.	0	0	0	0	No attacks in 15 months.
22	N. J.	7	4	8	19	Attacks increased.
23	M. M.	1	3	4[3]		Attacks increased.
24	C. M.	26	32	64	115	Attacks increased.
25	D. N.	48	59	80	159	Attacks less.
26	M. N	50	59	83	149	Attacks less.
27	V. P.	22	14	24	62	Attacks less.
28	A. P.	17	50	99	168	Attacks increased.
29	L. R.	1	6	12	28	Attacks increased.
30	A. R.	12	21	10	82	Attacks increased.
31	D. S.	3	2	6	13	Attacks same.
32	C. S.	2	8	17	31	Attacks increased.
33	K. V	7	11	17	51	Attacks increased.
34	H. V. H.	2	2	3	7	Attacks less.
35	M. W.	12	13	29	59	Attacks increased.

MALES.

No.	NAME.	Number attacks 3 months before using glasses.	Number attacks 3 months after using glasses.	Number attacks 6 months after using glasses.	Number attacks 1 year after using glasses.	REMARKS.
1	G. D. B.....	69	29	Dis. after three months.		Attacks less.
2	F. B.....	2	4	22	75	Attacks increased.
3	O. B.	12	8	No attacks in ten months.		Attacks less.
4	G. B.....	7	0[1]	28	59	Attacks increased.
5	W. B.....	6	2	8	24	Attacks same.
6	J. C.	14	21	36	55	Attacks same.
7	W. C.....	11	112	250	387	Attacks increased.
8	J. W. D.	23	11	19	41	Attacks less.
9	W. D.....	23	8[2]	19	41	Attacks less.
10	G. E.	0	9	9	11	Attacks increased.
11	A. E.	0	1	3	12	Attacks increased.
12	G. E.....	3	3	7	16	Attacks increased.
13	C. G.	9	16	20	36	Attacks same.
14	A. J.....	6	4	15	40	Attacks increased.
15	W. K.....	0	0	0	0	Discharged in 9 months.
16	W. P. M.....	4	1[3]	3	14	Attacks same.
17	V. M.....	3	4	12	19	Attacks increased.
18	I. M.....	306	222	622	1033	Attacks same.
19	J. McF	0	0	0	0	No attacks in 15 months.
20	T. McJ	24	24	43	72	Attacks same.
21	W. O.....	3	3[4]			Attacks same.
22	H P.....	33	33	50	102	Attacks same.
23	M. Q.....	11	3	23	31	Attacks same.
24	J. R.	13				Died.
25	G. S.	24	14	29	70	Attacks same.
26	J. S	35	32	77	0[5]	Attacks same.
27	C. S	74	85	185	0[6]	Attacks same.
28	G. V. K.....	2	3		0[7]	Attacks same.
29	E. W	4	10	17	31	Attacks increased.
30	C. C.....	33	56	107	195	Attacks increased.
31	J. K.....	0	3	6	18	Attacks increased.
32	C. W.....	0	0	0	0	No attacks in 15 months.
33	C. W.[2]	25	31	61	116	Attacks increased.

Dr. Spratling discusses these results and then concludes:

"Personally, I deeply regret that the experiment so carefully and scientifically made by Drs. Gould and Bennett, did not yield better results. At the same time, it strengthened my convictions that epilepsy is not a 'single prescription disease,' so to speak—the the correction of the abnormalities of the eye alone is not any more likely to cure it than are surgical measures directed against the brain, from which so much was at one time hoped for, but from which we now expect so little."

ADDENDUM BY DR. GEORGE M. GOULD.*

In reference to the article which Dr. Spratling has been so courteous as to show me before publication, I would like to say:

1. I have had 6 cases in my private practice in which per-

* Published after submission to Dr. Spratling and with his consent.

manent cure of epilepsy has been effected by glasses alone. Many other cases have been reported. I know of two oculists who have similar unreported cases. About half of the 68 patients whose eyes were examined at Craig Colony had unsymmetric astigmatism, an enormously high percentage of a defect which, as all admit, is intensely injurious to the nervous system. These facts lead to the conclusion that eye-strain is a cause of epilepsy in at least a small proportion of cases.

2. The total patients examined	68
Number having no attacks for three months prior, or 3 months after, and which should have been omitted	8
	60
Died or left off glasses	3
	57
Same number of attacks prior or after	8
	49
Attacks lessened in 3 months	19
Attacks increased in 3 months	30
The 19 patients whose attacks were lessened, had, during the 3 months prior to the beginning of the experiment, attacks	861
During the 3 following months	479
Showing a decrease of over 44%	382

Moreover, this lessening of the number of seizures in 3 months of 19 patients by 382 does not comport with the statement in the official report which says that "only one patient out of the 68 (should be 57) experienced any benefit in their disease while wearing glasses. I would like to ask if any therapeutic experiments, or if all combined made at the Colony, have lessened the number of seizures in 3 months in 19 patients by 382? I am astonished at such good results and never expected such high percentages of benefit from the test. Instead of "disappointing" it seems to me the reverse.

. . . . . .

According to the report there was 1 cure in 57 of the patients tested. How does this compare with the officially reported cures at the Colony since its foundation? To October, 1902, there have been admitted 1,286 patients, and of these, 16 had been cured by all the methods of treatment. This is 1 in 80. By the treatment of the eyes alone, 1 in 57 has been cured. Thus the ocular treatment alone has proportionally cured nearly

one-third more cases than all the combined methods pursued at the Colony. Except in the sense that all the methods of cure tried at the Colony are "disappointing," the results of the ocular test are scarcely to be called so. There is a story in Matthew xviii., verses 12 and 13, that might be called to Dr. Spratling's attention. It may also apply to epileptics with eye-strain.

SUMMARY.

Two mistakes were made in conducting the experiment: 1. Young patients, and those only with less injured nervous systems should have been chosen. 2. Resident or frequently visiting opticians and oculists should have been insured to make the retestings, readjustments, etc., most necessary. Despite these faults, together with incomplete statistics, etc., 19 out of 57 patients, for the only comparable terms given of 3 months showed a reduction of the number of seizures of 382 (44 per cent.), and 1 in 57 was cured against 1 in 80 by all other methods of treatment that have been tried at the Colony. From the result of the experiment at Craig Colony I judge that the permanent residence at such institutions of an expert ophthalmologist would result in great monetary saving on the part of the State. Spectacles would certainly lessen the special disease, and the number of seizures. Even if they would not do so they would tremendously lessen headache, digestional troubles, etc. For mere humanity's sake they should be ordered. The habit of depreciation and ignoring the eye-strain factor is both cruel and unscientific.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, K. C. McILWRAITH, FRED. FENTON AND HELEN MacMURCHY.

The Treatment of Post-partum Hemorrhage.

Prof. H. Fritsch (*Deutsche Med. Woch.*, Jan. 1, p. 18).—In post-partum hemorrhage treatment should proceed on a settled plan, and time should not be wasted in trying useless methods. Prophylaxis consists in proper management of the third stage of labor. If the uterus is squeezed or massaged directly after the child is born the placenta partially separates, the uterus is unable to contract evenly, and hemorrhage is inevitable. When after-pains occur, the fundus may be gently rubbed for ten to twenty minutes after delivery. It is remarkable that in no reported case in which the uterus has not been touched, as in

concealment of birth, has the mother died of post-partum hemorrhage. But if from any cause there has been hemorrhage, the uterus becomes atonic. Probably hemorrhage is more often the cause of atony than the result. In cases of atony in which the woman is perhaps already pulseless the following procedure is safe and certain: The accumulation of blood in the uterine cavity is expressed, and the hands are passed between the recti, which are usually easily pushed aside, so as to reach the back of the uterus, which is raised as high as possible, forcibly anteflexed, and compressed against the superior and posterior surfaces of the pubes. The internal os then lies exactly above the pubic portion of the ilio-pectineal line. The abdominal walls immediately after delivery are easily forced behind the uterus as deeply as the pelvic brim. The resulting funnel-shaped pouch of skin and muscle is firmly plugged with folded towels, linen, or if sufficient is available, with large pads of cotton wool, until the uterus is immovably fixed against the anterior abdominal wall and the pubes. A roller bandage is applied over the padding which is thus forced behind the uterus towards the pelvic inlet. The body of the uterus then lies above and in front of the symphysis pubis. The method has the following advantages:

1. By compression of the abdominal cavity blood is retained in the upper half of the body even more effectually than by direct compression of the abdominal aorta and bandaging the legs.

2. Hemorrhage is impossible as the uterine walls are so pressed together that the uterine cavity is obliterated.

3. Hemostasis is immediate. If the uterine cavity is plugged large quantities of blood escape during the operation and are absorbed by the tampon itself. Prof. Ritch has seen cases in which after completion of plugging the woman was found to be dead.

4. No time is lost in disinfecting the hands as no internal manipulations are required.

5. The pad once in place, no further disturbance of the patient is necessary, and there are no uterine plugs to be removed.—*Medical Review.*

Editorials.

UNIVERSITY OF TORONTO CONVOCATION HALL.

We understand that the proposed Convocation Hall for the University of Toronto will shortly be erected. Through the efforts of Dr. R. A. Reeve, Dean of the Faculty, assisted by other members of the Alumni Association, a large sum of money has been subscribed, which, with the addition of the Government grant, will amount to over $100,000.

It was at first contemplated to use brick, but it is now hoped that a handsome stone building will be erected. The main hall in the building according to the plans is arranged in the form of an amphitheatre, in such a way that no seat is more than sixty feet from the centre of the stage. The total seating capacity is 1860. On the ground floor the inner circle will seat 470, the outer circle rising from the floor will seat 440. The first gallery will accommodate 360, and the second gallery 460. The platform will seat 120, and the special boxes ten more. On each side of the platform will be retiring rooms 34 by 23 feet. On the ground floor there is a spacious lobby running from one end of the stage to the other, behind the outer circle, affording many entrances to that and to the inner circle, and off it are a number of cloak rooms. The first gallery is really the continuation of the outer circle, and gives that impression from the stage. Around both galleries are wide corridors, so arranged that entrance and exit will always be easy. In the rear of the main hall there is a large room 180 by 50 feet, capable of seating 500 persons. This smaller room can be used for banqueting purposes, or for meetings which are not large enough to require the main hall.

The whole building is excellently designed in accordance with the best modern ideas.

THE PROPOSED NEW BELLEVUE HOSPITAL, NEW YORK.

We learn from the *New York Medical Journal* that the new Bellevue Hospital, which is shortly to be erected in that city, will be a magnificent structure. The plans were first made public by Dr. Brannan, President of the Bellevue Hospital Board of Trustees, in an address to the students of the Columbia University, April 22nd.

The preliminary work of the architects in drawing plans cost $75,000. The building is designed to occupy three full city blocks from Twenty-sixth to Twenty-ninth streets, and from First Avenue to the East River. The extra land alone will cost $1,000,000. And in addition to the property to be purchased the structure will require two additional acres, to be cleared by changing the bulkheads along the water front. The building is expected to cost not less than $14,000,000. It is said it will be the largest, handsomest and most completely equipped hospital in the world, and will accommodate 2,500 patients. The main or central part of the building will be about 150 feet from the river in front, and an equal distance from First Avenue on its western side, and large wings on both sides will run east and west. The total length of the wings on Twenty-sixth and Twenty-ninth streets will be 715 feet. The appearance of the hospital from the river and from First Avenue, where the main entrance will be, are practically identical excepting that owing to the slope towards the river the building will be one storey higher on that side.

Roof gardens will be used by convalescent patients, who will be carried directly to the roof in seven elevators. These roof gardens will have wards accommodating one hundred patients. The roof will be surrounded by a four foot parapet.

It is not expected that there will be a demand on the hospital's full capacity as soon as it is built, on the contrary, it is expected that the new hospital will meet the demands made by the city's growing population for a considerable time, and besides it will be possible to add four more pavilions when they are needed.

TORONTO'S ISOLATION HOSPITAL.

The Isolation Hospital of the city of Toronto is in its way a model. The only institution upon this continent which in any way compares with it is the Willard Parker Institution of New York, which does somewhat similar work to that of the Riverdale Hospital of this city. The Toronto institution is the outcome of the old building which stood for many years near Broadview avenue as the Smallpox Hospital, when Dr. Riddel acted as the first Health Officer of the city prior to the passing of the present Health Act, back in the seventies. That building was a well constructed, small affair, intended to furnish limited accommodation for smallpox patients, and it did good work until it was superseded by the present building, and was ordered to be burned by the Municipal Council during Mayor Kennedy's regime. The old Smallpox Hospital was used by Dr. Allan, Dr. Sheard's predecessor, for housing contagious diseases, diphtheria and scarlet fever, but its construction and arrangements were wholly inadequate to meet such a work.

In 1892 the local Board of Health of Toronto obtained from the Ontario Government special legislative enactment permitting the present site to be used for purposes within the meaning of the Act, and they at once had plans prepared, and constructed the Isolation Hospital building to which a wing has just been added. This building was designed and constructed under the arrangements of Mr. Henry Simpson, architect, and is a fairly good building provided with two extension wings, the front portion of the building being occupied with the executive rooms, whilst above them are provided wards. This building was practically finished when the present Medical Health Officer took charge, and has been occupied ever since in doing the work of a contagious disease hospital. Within later years the accommodation was too limited, and after a great deal of discussion permission was obtained from the Ontario Legislature sanctioning the construction of the present addition. As it now stands there is practically a separate building for scarlet fever and diphtheria, with a capacity for upwards of two hundred patients, which, it is hoped, will be ample provision for many years to come.

ONTARIO MEDICAL LIBRARY ASSOCIATION.

The Ontario Medical Library Association since its formation has been located in the Ontario Medical Council Building. It is expected that a building in the Queen's Park will soon be purchased for the purposes of the Association.

We are requested by the trustees of the association to correct a mis-statement which appeared in one of the Toronto daily papers, to the effect that "the Ontario Medical Association, the Clinical Association and several other medical associations, decided to establish a club in Toronto for the use of the profession. It has been felt for some years that a social club for the doctors would be most desirable, and it is expected that the organization will have a large membership, resident and non-resident."

The trustees wish it to be understood that the objects of the medical organization which contemplates leasing the Thorne residence in the Queen's Park are educational rather than social. It is consequently misleading to refer to the organization as a club. It will be a medical institute and library, founded on the lines of a similar association in Birmingham, England.

The residence referred to, if leased, will be used only for literary and scientific purposes. There will be from time to time lectures by specialists in various branches of medical study, and it is probable that before long a museum will be established.

ONTARIO MEDICAL ASSOCIATION.

The twenty-fourth annual meeting of the Ontario Medical Association will be held in Toronto in the new Medical Building of the University of Toronto, June 14, 15 and 16, under the presidency of Dr. J. F. W. Ross. The Committee on Papers and Business, under the chairmanship of Dr. Albert Macdonald, has nearly completed the programme.

A very pleasing feature of the meeting will be the tenth class re-union of 1894, University of Toronto, under the presidency of Dr. W. J. McCallum. Between thirty and forty

graduates have already signified their intention of coming to the city to meet as a class, and also attend the sessions.

The Committee of Arrangements, under the chairmanship of Dr. Allen Baines, is providing a plan of entertaining, which it is hoped will be acceptable to the visiting members and guests.

The provisional programme includes the following list of papers:

"Prophylaxis of Diabetic Coma," Dr. John Caven, Toronto.

"Uncertainties of Diagnosis and the Necessity of Early and Vigorous Treatment of Diphtheria," Dr. McMahon, Toronto.

"Anemias More Than Ordinarily Severe," Dr. Frank Trebilcock, Enniskillen.

"Modified Smallpox," Dr. Chas. Hodgetts, Toronto.

"Electro-Therapeutics," Dr. Lipsey, St. Thomas.

"Functitional Heart Murmurs," Dr. Rudolph, Toronto.

"A Case of Landry's Paralysis," Dr. Hugh McColl, Milton.

"Inflammation of the Laryngeal Apparatus," Dr. G. H. Burnham, Toronto.

"A Discussion of the Subject of Life Insurance from the Standpoint of the Expectancy of Life in Conditions of the Various Systems," to be participated in by Dr. E. Ryan, Kingston: Dr. R. J. Dwyer, Toronto: Dr. H. R. Frank, Brantford; Dr. B. L. Riordon, Toronto.

"A Restatement of the Attitude of the Profession Toward Placenta Previa," Dr. McIlwraith, Toronto.

"Myxomatous Degeneration of the Chorionic Villi," Dr. C. J. Hastings, Toronto.

"Occipito-Posterior Positions in Obstetric Practice," Dr. A. A. Macdonald, Toronto.

"Anomalies in Fetal Development, with Exhibition of Specimens and Descriptions of Cases," Dr. J. Peters, Hamilton, and Dr. F. J. R. Forster, Caistorville.

"Clinic upon Diseases of the Skin," Drs. McPhedran and H. B. Anderson, Toronto.

"An Exhibition of the Methods of Intestinal Anastomosis, dealing especially with the Elastic Ligature," Dr. N. A. Powell, Toronto.

"Tumors of the Prostate Gland, Etioloy, Symptoms and Pathology of," Dr. F. W. Marlow, Toronto, and "Surgical Relief of," Dr. G. A. Bingham, Toronto.

"Lithotomy *versus* Lithotrity," Dr. Chas. B. Shuttleworth Toronto.

"Thiersch's Method of Skin Grafting," Dr. Primrose, Toronto.

"Report of a Case of Congenital Dislocation of Both Hips Treated by Lorenz Method and Exhibitions of Photos, Skiagraphs, and of Patient," Dr. H. P. H. Galloway, Toronto.

"Some Cases Illustrating Difficulties of Differential Diagnosis and Treatment of Tumors," Dr. Wm. Oldright, Toronto; "Ophthalmia Neonatorum," Dr. Perry G. Goldsmith, Belleville.

Of the distinguished visitors who are to be present, Sir Frederick Borden will discuss "The Evolution of the Medical Department of the Militia of Canada and the Possibilities of its Future Development," and Sir Wm. Hingston will give a paper dealing with the subject of "Cancer."

The London Medical College in Affiliation with the Western University.

The following gentlemen have passed the final examination and have been admitted to the degree of M.D. in the University: J. Agnew, Wingham; W. G. Anderson, Thorndale; G. M. Campbell, Belmont; J. G. Gunn, Ailsa Craig; W. H. Keen, St. Mary's; J. T. Lefever, Dunnville; A. J. Manard, Belle River; C. F. McGuffin, London; A. McMillan, London; D. McMillan, London; F. B. Patterson, Yarmouth Centre; J. H. Ross, London; A. W. Seighon, London; C. O. E. Smith, London; E. Spence, Mosley; H. G. Taylor, London; A. Turner, Southwold; J. A. Wright London.

Dr. A. Primrose, of Toronto, read a paper on "Some Observations on the Surgical Treatment of the Chronic and Acute Nephritis," before the Montreal Medico-Chirurgical Society, April 15th. In the discussion which followed, Drs. Shepherd, Martin, Finley, Mills, Adami, Garrow and McCrae took part. It was generally agreed that decapsulation of the kidney relieved symptoms in certain cases of nephritis; after operation reformation of the capsule occurs, but the tissue replacing the original capsule cannot be expected to be perfect. If a form of cicatrical connective tissue, it must tend to contract Dr. Primrose thinks that operation is more advantageous in parenchymatous nephritis than in the interstitial form.

Personals.

Dr. Fred. Kane of Dawson City, Y.T., visited Toronto early in April.

Dr. Graham Chambers, of Toronto, sailed from Quebec for England, May 21st.

Dr. Franklin Dawson, of Toronto, left home on a trip to Scotland, May 12th.

Dr. John Edgar King of Weston, has quite recovered from his recent attack of pneumonia.

Dr. Arch. J. Sinclair (Trin. '75) has been appointed Collector of Customs for the town of Paris.

Dr. Jno. L. Davison, of Toronto, left home May 15th on a trip to Great Britain and the Continent.

Dr. Bruce Riordon, of Toronto, returned to his home May 16th, after a visit to Chicago and St. Louis.

Dr. Jas. J. Brown (Tor. '87) of Owen Sound, who recently had an attack of pneumonia, has quite recovered.

Dr. Brefney O'Reily expected to sail from Liverpool for Canada on the Allan Steamer *Ionian*, May 26th.

Dr. Allen Baines and Dr. Clarence L. Starr of Toronto, are building on Bloor Street west, opposite McMaster University.

Dr. S. P. May of the Educational Department, Toronto, has been elected Hon. Vice-President of the Veterans' Association.

Professors A. B. Macallum and Jno. J. Mackenzie, of the University of Toronto, started for England in the latter part of May.

Mr. P. C. Larkin has been appointed a Member of the Toronto General Hospital Trust, in the place of Mr. Blakie, resigned.

Messrs. J. A. Carveth & Co., publishers and booksellers of Toronto, are now located in their new premises at 434 Yonge Toronto.

Dr. William Britton of Toronto, has completely recovered from an attack of la grippe, which occurred after the death of his brother.

Dr. J. Russell, Superintendent of the Hamilton Asylum, and Dr. E. G. Wood, of Mitchell, Ont., have gone to Great Britain with the Canadian bowling team They sailed from Montreal, May 26th, on the *Lake Manitoba*.

Through the munificence of Sir William Macdonald, McGill University will have a students' re-union building, costing $100,000.

Dr. Duncan Anderson left for New York April 15th. He expects to take special courses in surgery in New York, Philadelphia and Baltimore.

Dr. Ernest Wills recently visited Toronto. He hopes to have the Sanitarium at Calgary, N.T.W. completed, and in good running order in a short time.

Dr. W. J. Chambers (Tor. '02) has recently returned from London, England, where he passed the conjoint examination for L.R.C.P. and M.R.C.S., England.

Dr. J. W. Scane, Registrar of McGill Medical Faculty, has been appointed Assistant Professor in Pharmacology in the place of Dr. Halsey, resigned.

Dr. Fred. W. Marlow (Fellow of the Royal College of Surgeons in England), of Toronto, will in his future practice give exclusive attention to general surgery.

Dr. Sheriff has been appointed Resident Physician of the Isolation Hospital, Ottawa, in the place of Dr. Campbell, resigned, who has gone abroad for post-graduate study.

Dr. G. W. Ross (Tor. '03) who has been doing post-graduate work in London, England, for some months, has returned home on a visit to his father, the Premier of Ontario.

Mr. A. P. Watts, formerly of the Chandler & Massey Company, has been appointed sole Canadian agent for William Wood & Company, Medical Publishers, New York.

Mr. A. McFadyen, formerly of J. A. Carveth & Co., has been appointed Manager of the Medical Book Department of the Chandler & Massey Company, 235 Yonge Street, Toronto.

The Trustees of The Toronto Western Hospital have purchased the site which it has occupied for the last twelve years. The block of land contains four acres. The hospital will be much improved and enlarged in the near future.

The Canadian Doctors, Hutchison and Armstrong of Montreal, Anglin of Kingston, McLaren of St. John, N.B., and Ingersoll Olmstead of Hamilton, who sailed from Boston for Genoa, April 9th, reached Vienna about the middle of May.

Dr. J. T. Halsey, formerly Assistant Professor of Pharmacology in McGill University, has been appointed Professor of Therapeutics and Clinical Medicine at Tulane Medical University, New Orleans, and will enter upon his duties there next fall.

Dr. J. Watson, who has practised for past twelve years in Unionville, has sold his practice to Dr. R. J. Trumpour, of Toronto. After spending three months in Edinburgh hospitals, Dr. Watson will resume practice at corner Ossington Avenue and College Street, Toronto.

Lord Strathcona has given $20,000 to Manitoba University, to be expended on the Science Department. This generous gift will enable the university to proceed at once. A block of land will also be placed at the university's disposal sufficient to secure a large yearly revenue.

Dr. Geo. W. Badgerow of Toronto, has been reappointed for a second term of six months as Senior Resident Surgeon in the Golden Square, Throat, Nose and Ear Hospital, (founded by Sir Morell Mackenzie) London, England. He expects to return to Toronto about October 1st.

Dr. F. G. Beck of Port Arthur, after staying in Gravenhurst for a number of weeks came to Toronto in April much improved in health. After a visit of a week in Toronto, he returned to Port Arthur and expects soon to go out to Kamloops, B.C., where he is likely to remain for some time.

The following officers of the Central Medical Association were elected at the last meeting held at Peterboro': President, Dr. Halliday: First Vice-President, Dr. McNulty; Second Vice-President, Dr. Carmichael; Treasurer, Dr. Caldwell: Secretary, Dr. Naughton; Auditors, Drs. Scott and Amys.

The following appointments have recently been made in the University of Toronto: H. S. Hutchison, M.B., W. M. Meldrum, M.B., Assistants in the Chemical Laboratory; R. H. Mullin, M.D., Assistant Demonstrator in Pathology; F. W. Marlow, M.D., F.R.C.S.Eng., Assistant Demonstrator in Anatomy.

Dr. Douglas W. Montgomery, Professor of Dermatology, University of San Francisco, expected to leave for Chicago in the latter part of May. After passing through Toronto and Buffalo he will go to Atlantic City to attend the meeting of the American Medical Association, commencing June 7th. From Atlantic City he will return to Toronto to make a visit of a few days.

Dr. Charles S. Sherrington, Holt Professor of Physiology, University of Liverpool, England, who delivered the opening lecture in the new building of the Faculty of Medicine, University of Toronto, last fall, returned to Toronto about the middle of May. Professor and Mrs. Sherrington were entertained at dinner in the University dining hall, May 14th, by members of the medical faculty and their wives.

Obituary.

H. C. FEATHERSTON, M.D.

Dr. Herbert C. Featherston, of Toronto, died April 8, aged 25. After graduating from McGill University in 1902, he took a post-graduate course in Edinburgh, and received the double Glasgow and Edinburgh qualifications. He returned to Toronto in November last in poor health. The immediate cause of death was pleuro-pneumonia.

ISAIAH RIDER, M.D.

Dr. Isaiah Rider died in Toronto May 6th, aged 71 years. After graduating he practised for a time in Port Hope, and afterwards conducted an institution at Chippewa. He came to Toronto twenty-five years ago, but did not engage in active practice. He devoted himself chiefly to scientific and philanthropic interests, and was much liked by those who knew him intimately.

MRS. (DR.) WILLIAM BURT.

Mrs. Burt, wife of Dr. William Burt, died at her home in Paris, Ont., May 9th, 1904.

Book Reviews.

Nervous Diseases. By F. Savary Pearce, M.D., Professor of Nervous and Mental Diseases in the Medico-Chirurgical College, Philadelphia. D. Appleton & Co.: New York and London, 1904. 91 illustrations: 400 pp.

This book is written for a practical purpose, by a practical man, and hence contains none of those doubtful points in neurology, which make some of the larger works such dull reading. Yet each subject is dealt with fully, and all known facts are set down concisely and in such a way as to be easily referred to. The original illustrations introduced are excellent. Like so many books written nowadays, this, unfortunately, contains a great deal of compilation from other authors. However, for a short treatise on this intricate subject, Dr. Pearce's work has much to commend itself. F. A. C.

Tuley's Epitome of Pediatrics. A Manual for Students and Practitioners. By Henry Enos Tuley, A.B., M.D., Professor of Obstetrics in the Medical Department of Kentucky University, Louisville, Ky. In one 12mo volume of 266 pages, with 33 engravings. Cloth, $1.00 net. Lea Brothers & Co., publishers, Philadelphia and New York, 1903.

This is another epitome of Lea's excellent series, and is fully equal to any that have gone before. It considers the whole subject of pediatrics most thoroughly, while the questions at the end of each chapter are of great use to a student preparing for examination. The various diseases peculiar to children are discussed very systematically and clearly. F. A. C.

Commoner Diseases of the Eye; How to Detect and How to Treat Them. By Casey A. Wood, C.M., M.D., D.C.L., Professor of Clinical Ophthalmology in the University of Illinois, etc., and Thomas A. Woodruff, M.D., C.M., L.R.C.P., Professor of Ophthalmology in the Chicago Post-Graduate Medical School, Chicago, etc. 250 illustrations; 7 colored plates. 500 pp. 5 by 8 in. Bound in green buckram, gold side-title and top. $1.75 net. Published by Engelhard & Co., Chicago, Ill.

This book is specially written for the physician in general practice. It covers all the diseases likely to come before the physician, and covers them in a very practical manner. In addition to the chapters on diseases, it has good sections on the methodical examination of the eye, on refraction, on how to preserve the eyesight, on the relations of ophthalmology to general medicine, and especially good accounts of ocular headache and eye-strain. The chapters on remedies and operations are most admirable and will be exceptionally useful. The book is well illustrated, and will be most useful for those for whom it is intended. J. T. D.

Obstetrics for Nurses. Joseph B. De Lee, M.D. Philadelphia, New York and London: W. B. Saunders & Co. 460 pages. $2.50. Canadian agents, J. A. Carveth & Co.

The author of this interesting and complete work is professor of obstetrics in the North-Western University Medical School, Chicago, and has also had eight years' experience as lecturer on obstetrical nursing in five different training schools in that city. We have no hesitation in recommending the book to nurses as a satisfactory text-book on the subject, and many physicians beginning the practice of their profession, who feel that their obstetrical text-books are not sufficiently practical, will find this book of considerable importance. (We think, however, that a book on obstetrics should be very practical in character.) There are one or two places in the book where slight improvements will probably be made in later editions (*e.g.* page 202, "Used the measure on the human") and we do not altogether agree with the remarks of Dr. De Lee in regard to the washing of the infant's mouth, as found on page 147. But the general character of the book is excellent. Most of the illustrations are both new and good, and the explanations are always admirably clear.

We have received from Messrs. Saunders & Co., of Philadelphia, a list of new books and new editions which they have in active preparation for early publication.

Among the most important of these will be a new work, entitled "The Veriform Appendix and Its Diseases," by Howard A. Kelly, M.D., of Johns Hopkins Hospital, Baltimore. We understand that this book will contain over 400 superb illustrations, in the preparation of which the well-known artists of the Johns Hopkins University have spent many years.

Among the other books promised are the following:

Nothnagel's Practice of Medicine.

Diseases of the Intestines and Peritoneum. By Dr. Hermann Nothnagel, of Vienna. Edited, with additions, by Humphrey D. Rolleston, M.D., F.R.C.P., of St. George's Hospital, London. Octavo volume of 1032 pages, containing 20 insert p ates. Cloth, $5.00 net; half morocco, $6.00 net.

Tuberculosis and Acute General Miliary Tuberculosis. By Dr. G. Cornet, of Berlin. Edited, with additions, by Walter B. James, M.D., of the College of Physicians and Surgeons, New York. Handsome octavo of 806 pages. Cloth, $5.00 net; half morocco, $6.00 net.

Epilepsy and Its Treatment. By Wm. P. Spratling, M.D., Medical Superintendent of the Craig Colony for Epileptics at Sonyea, N.Y. Octavo volume of 528 pages, illustrated.

A Text-book of Pathology. By Joseph McFarland, M.D., of the Medico-Chirurgical College, Philadelphia. Octavo volume of about 800 pages, beautifully illustrated, including a number in colors.

Clinical Diagnosis. By L. Napoleon Boston, M.D., Medico-Chirurgical College, Philadelphia. Octavo volume of 525 pages, containing 200 illustrations, including 25 colored plates.

A Hand-book of Surgery. By FREDERIC R. GRIFFITH, M.D., of New York. 12mo of about 450 pages, with 300 illustrations. Bound in flexible leather.

Diseases of the Liver. By HUMPHREY D. ROLLESTON, M.D., F.R.C.P., of St. George's Hospital, London. Octavo volume of about 1000 pages, beautifully illustrated, including a number of colored plates.

A Text-book of Legal Medicine. By FRANK WINTHROP DRAPER, A.M., M.D., of Harvard University Medical School, Boston, Mass. Handsome octavo of nearly 600 pages, fully illustrated.

A Text-book of Materia Medica: Including Laboratory Exercises in the Histologic and Chemic Examination of Drugs. By ROBERT A. HATCHER, Ph.G., M.D., of Cornell University Medical School, New York City, and TORALD SOLLMANN, of the Western Reserve University, Cleveland, O. 12mo volume of about 300 pages. Bound in flexible leather.

Examination of the Urine. By G. A. DE SANTOS SAXE, Pathologist to Columbus Hospital, New York City. 12mo volume of about 300 pages, fully illustrated. Bound in flexible leather.

A Text-book of Operative Surgery: Covering the Surgical Anatomy and Operative Technic involved in the Operations of General Surgery. By WARREN STONE BICKHAM, M.D., of the College of Physicians and Surgeons, New York City. Second edition, revised. Octavo volume of about 1000 pages, with 559 beautiful illustrations, nearly all original. Cloth $6.00 net; sheep or half morocco, $7.00 net.

The Practical Application of the Rontgen Rays in Therapeutics and Diagnosis. By WILLIAM ALLEN PUSEY, A.M., M.D., of the University of Illinois, and EUGENE W. CALDWELL, B.S., of the Edward N. Gibbs Memorial X-ray Laboratory of the University and Bellevue Hospital Medical College, New York City. Second edition, revised and enlarged. Octavo volume of about 625 pages, with nearly 200 illustrations, some in colors.

A Text-book of Mechano-Therapy (Massage and Medical Gymnastics). By ALEX. Y. GRAFSTROM, B.Sc., M.D., late of City Hospital, Blackwell's Island, N.Y. Second edition, greatly enlarged and entirely re-set. 12mo of 200 pages, fully illustrated.

Materia Medica for Nurses. By EMILY A. M. STONEY, Superintendent of the Training School for Nurses at Carney Hospital, South Boston. Second edition, thoroughly revised and enlarged. 12mo volume of 325 pages.

Obstetrics and Gynecologic Nursing. By EDWARD P. DAVIS, A.M., M.D., of the Jefferson Medical College, Philadelphia. Second edition, revised and enlarged. 12mo of 400 pages, fully illustrated. Bound in buckram.

Text-book of the Practice of Medicine. By JAMES M. ANDERS, M.D., Ph.D., LL.D., Professor of the Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Sixth edition, thoroughly revised. Handsome octavo volume of 1300 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Cloth, $5.50 net; sheep or half morocco, $6.50 net. Canadian agents: J. A. Carveth & Co., Toronto.

This is the sixth edition of this unexcelled work in as many years. Such signal success must afford gratification alike to the author and to the publishers. In this edition the general plan and principles of classification adopted in the previous editions have been preserved. The many tabular presentations of points in differential diagnosis have been retained. Malaria, yellow fever, bacillary dysentery, cholecystitis, certain animal

parasitic diseases, and the use of the X-rays in diagnosis and treatment have been fully discussed, incorporating the results of the most recent investigations. Among the new subjects introduced are Paratyphoid Fever, the Fourth Disease, Trypanosomiasis, Orthostatic Albuminuria, Transcortical Aphasia, Adiposis Dolorosa, and Amaurotic Family Idiocy. Every affection has been treated separately, particular attention being paid to its clinical character, diagnosis and treatment. Evidently an immense mass of literature has been thoroughly digested, no pains having been spared to bring the entire work down to date, giving special reference to the daily needs of practitioners and students.

This is certainly one of the best text-books on the practice of medicine that we know of, and is admirably adapted for both student and general practitioner.

Selections.

SURGICAL HINTS.

Thick glue placed on a camel's hair brush, and then left for a few hours in contact with a foreign body in the ear, will often enable you to remove it quite easily.

In fractures and dislocations, one of the advantages of early passive motion is that it can be exerted much more gently than at a later date, when the stiffness has increased.

High rectal injections of normal salt solution are the best means of combating excessive thirst after abdominal operations. Washing out the stomach just before the patient awakens from anesthesia has a happy effect in preventing, to a great extent, the nausea following ether.

In operations on the gallbladder, it is well to remember that jaundice, particularly when it has lasted a long time, is attended with an increased tendency to hemorrhage. In this class of operations we must always remember that the bile is presumably infected, and that it must be kept away from the general peritoneal cavity and its contents.

How long shall we wash our hands before operating? The only answer to this is that we can never wash them long enough, since there is evidence that we have no means of entirely sterilizing them. Rubber gloves form the only logical remedy, and should be always used unless there is good reason to avoid them, either because the operator cannot as easily feel tissues and handle needles with them, or because the surgeon is so careful of his hands that he has a legitimate belief that they are as nearly sterile as possible.—*International Journal of Surgery.*

Tympanitis of Typhoid Fever.

Troublesome tympanitis interfering with respiration I have succeeded in relieving by giving:

℞	Sodii bromidi	ʒ j.
	Aq. dest.	℥ j.
	Aq. flor. aur.	ʒ ij.

M. A tablespoonful every two hours; and ordering an enema of 1 ounce of glycerin to 2 to 3 ounces of hot water to be thrown into the rectum.—*Dr. Leonard Weber in Post-Graduate.*

Family Diabetes.

Martinet (*La presse Médicale*, February 10, 1904, p. 94) reports that in June, 1900, a man, aged forty-eight years, consulted him for symptoms which proved to be those of diabetes mellitus. The disease had followed an attack of influenza contracted in the previous February. The patient's father had died of diabetes also.

Several months later the writer was consulted by the patient's wife, a woman aged forty years. She was found to have exophthalmic goitre. The examination of the urine showed a large amount of sugar present. Martinet considers this a typical case of *conjugal diabetes*, although some objection might be taken to this opinion, owing to the not infrequent occurrence of glycosuria in exophthalmic goitre. He states that he observed four cases of conjugal diabetes in his practice during the year 1903, and does not believe that the condition is extremely rare.

At the beginning of this year the mother of the first patient, aged sixty-six years, came under treatment for a phlegmon on the right hand, which developed very rapidly after being pricked with a needle. The examination of this patient's urine also showed abundance of sugar. She lived with her son.

In this family the patient, his mother, and his wife had diabetes and his father died of the disease. The writer lays down the following axiom: If one discovers diabetes in one or several members of a family, the urine of all the other members should be examined for sugar, especially if the various members live together.—*American Journal of Medical Science.*

On the Use of Rubber and Thread Gloves.

Goepel (*Centralblatt für Chirurgie*, 1903, No. 42) states that in view of the fact that rubber gloves tear very easily and that thread gloves are very permeable, it is a good procedure to wear the latter over the former, which not only prevents the slipping of instruments, etc., but also has the following advantages: 1. It is a greater safeguard against infection, either of the patient by the operator or *vice versa*. 2. The hands can be used more freely and easily. 3. The gloves can be rapidly changed should necessity require. 4. The use of the thread glove does quite away with the slipperyness of the rubber, and so ligatures may be tied more easily and securely. 5. The thread gloves can be easily removed in any case where their roughness might injure the tissue and then be replaced when the danger is passed. 6. The time of the operation is shortened. 7. By their use repeated washing of the hands becomes unnecessary, as the gloves can be scrubbed while on the operator's hand, and this prevents chapping or eczema in those cases where the hands are very sensitive.—*American Journal of Medical Science.*

The Canadian Practitioner and Review.

VOL. XXIX. TORONTO, JULY, 1904. NO. 7.

Original Communications.

LITHOTOMY *versus* LITHOLAPAXY.*

BY CHARLES B. SHUTTLEWORTH, M.D., C.M., L.R.C.P. (LOND.), F.R.C.S. (ENG.),

Surgeon Out-Patients' Department Toronto General, St. Michael's and Hospital for Sick Children, Toronto; Demonstrator Clinical Surgery and Anatomy, Toronto University Medical Faculty.

The subject of stone in the bladder, notwithstanding the fact that it has been so often discussed, is of great interest to the surgeon, who is always inclined to give a favorable reception to any suggestions which may help to throw any light on the subject.

There are certain parts of the globe where stone is very prevalent, such as the North-West of India, the delta of the Nile, East Anglia, and, on this continent, the Mississippi valley, while in other countries of the world stone is only occasionally met with, or, indeed, is almost unknown.

In a review of the literature of the subject of urinary calculus, I have taken advantage of the writings of those who have had wide experience and unrivalled opportunities in dealing with this affection. These include Freyer, Keegan, Keith and Baker, in India; Milton, in Egypt; Ferguson, Thompson, Harrison, Cadge and Burton, in England; Guyon, Dittel and Volkmann, in Europe; and Briggs, Cabot, Keyes and Bangs, in America.

No single operation meets the requirements of all cases of stone. We have several entirely different methods, each of which has certain advantages and also its own peculiar difficulties and dangers, which must be recognized and avoided. The best results will be attained by the surgeon who has a thorough practical knowledge of all methods of operating, and who will

* Read before the Ontario Medical Association, June 14th, 1904.

study each case by itself, and, in the best interests of his patient, select the operation which best meets the indications and requirements. He will, in this way, obtain better results than are possible to the mere advocate of a special operation, however expert he may be in its performance.

Where a stone in the bladder is too large to pass *per vias naturales* one of two methods may be adopted, either opening the bladder through the perineum, or above the pubes; or crushing the calculus so that it may be removed through the urethra.

The first method of "cutting for stone" is one of the oldest operations known to surgeons, and dates back before the time of Hippocrates, and since Celsus, with a scalpel alone, cut blindly "on the gripe" the operation of perineal lithotomy has undergone many modifications. It was practised by priests and laymen with great success as late as the earlier part of the eighteenth century. To Cheselden, in England, is due the credit of placing the lateral operation on a scientific anatomical basis. He performed 213 lateral lithotomies with a mortality of only 5 per cent. Suprapubic lithotomy was first performed by Pierre Franco, in 1550, but was not recommended by him, and was lost to sight for a long time. It was revived in the eighteenth century by Douglass and Cheselden, in England, and was frequently practised during the earlier part of last century, but gradually declined in popularity, being more dangerous than the perineal route. In 1880 it was again revived by Petersen, of Kiel, who improved the operation by distention of the bladder and rectum with water. To this procedure, and the application of antiseptic methods, the operation owes its present popularity.

In 1818, Civiale published his work on lithotrity. He advocated the crushing of the stone in the bladder, at many short sittings, and left the fragments to be passed with the urine. His first successful operation was performed in 1824, and although operating with inferior appliances, he demonstrated the possibility of pulverizing stones by instruments introduced through the urethra. Subsequently various improvements were made in the instruments used, until the invention of the modern lithotrite, when the operation reached a high degree of perfection, although the death-rate was high.

It was, however, to the genius of Henry J. Bigelow, of Boston, that the origin of "lithotrity at one sitting" or litholapaxy is to be attributed. This occurred in 1878, when he introduced improved instruments, and proposed, under anesthesia, not only to crush the stone through the urethra, but by a powerful evacuator to wholly remove the fragments at one and the same sitting.

This procedure was eagerly accepted by the profession. It revolutionized the old operation of lithotrity, and up to the present time has been universally accepted as the best method of treating uncomplicated cases of vesical calculus.

Bigelow showed that the bladder was much more tolerant to instrumentation than was previously believed, and pointed out that the greatest danger of lithotrity was not in the use of instruments, but from the subsequent irritation of the bladder by the fragments of stone left in it.

In 1878, Otis, of New York, pointed out that the calibre of the urethra was greater than had formerly been supposed, and this has been found to hold good in children. Notwithstanding the fact that lateral lithotomy had been eminently successful in children, Surgeon-Major Keegan, in India, extended the operation of litholapaxy to males up to the age of puberty, and in the *Lancet* of January 16th, 1897, published the following table, showing the comparative safety of crushing operations in children:

Nature of Operation.	Number of Cases.	Average Age.	Percentage Mortality.
Litholapaxy	509	6.35	2.35
Lateral Lithotomy	267	6.90	5.24

In making a choice of several entirely different methods, it will be necessary to carefully consider various factors which in great measure contribute to a successful issue. These may be arranged as follows:

1. Age and mortality.
2. Size and consistency of the stone.
3. Completeness of cure.
4. The state of the urethra, bladder and kidneys.
5. The damage done to anatomical structures and interference with the functions of the parts.

To these must be added the skill and experience of the operator.

Age and Mortality.—The mortality of all stone operations is least in children, and increases with each decade after puberty, and cases may consequently be conveniently arranged in three groups, according to age; (*a*) Infancy to puberty; (*b*) Puberty to middle age: (*c*) Middle age to old age. This division marks more or less accurately certain epochs in the development and decay of the genito-urinary organs.

The following table, compiled from various sources by Cabot, of Boston, for "Morrow's System," includes the records of many operators, and also embraces Barling's Tables from six large London and six provincial hospitals, but excludes the statistics of surgeons who, by long practice and exceptional opportunities, have become exceedingly expert, as with Ferguson, Cadge and Agnew, in lithotomy, and Guyon, Keith, Keegan and Freyer in the operation of litholapaxy.

Group (a)—Infancy to Puberty.

	Cases.	Deaths.	Percentage Mortality.
Perineal Lithotomy	602	19	3.1
Suprapubic	637	84	13.1
Litholapaxy	284	5	1.7

Group (b)—Puberty to Middle Age.

	Cases.	Deaths.	Percentage Mortality.
Perineal Lithotomy	226	22	9.7
Suprapubic Lithotomy	159	18	11.3
Litholapaxy	485	22	4.5

Group (c)—Middle Age to Old Age.

	Cases.	Deaths.	Percentage Mortality.
Perineal Lithotomy	69	13	19
Suprapubic Lithotomy	91	17	18
Litholapaxy	581	40	7

The above statistics being based on the results of operations performed by various surgeons outside the "stone districts" will, perhaps, give a truer estimate of the relative mortality than the following table, which represents the returns of

operations performed on patients of all ages by experts in India, where stone is very common:

Operation.	Cases.	Cured.	Died.	Mortality.
Lateral Lithotomy	7,201	6,407	794	11.02
Suprapubic Lithotomy	147	86	61	42.17
Litholapaxy	10,073	9,665	399	3.96

Keegan, in *Lancet*, January 30th, 1897.

These figures show that in childhood the crushing operation is one of comparative safety, although there is little to choose between it and the time-honored lateral section. The *sectio alta* is at this age much more dangerous. After puberty the enlargement of the urethra and development of the prostate, with a consequent increase in vascularity, increases the dangers of cutting operations through the perineum. These changes, however, facilitate the crushing operation, and render the performance of litholapaxy comparatively easy and safe. In old age the mortality is decidedly in favor of litholapaxy, being very little higher than it was earlier in life, whereas the danger of all cutting operations is markedly increased at this age. This is due to a loss of vigor, the increased size of the prostate gland with its injurious effect on the bladder.

Size and Consistency of the Stone.—The limits as to size under litholapaxy are being from time to time extended as instruments become more perfected. Stones weighing as much as $6\frac{1}{8}$ ounces, which could not at first have been attempted, have been removed successfully in this way. (Freyer, in *British Medical Journal*, 1894.)

The hardness of the stone does not now contraindicate litholapaxy, but where a very large or dense calculus is encountered which defies the powers of the lithotrite, the surgeon will have to resort to one of the cutting operations.

Completeness of Cure.—That there is a greater danger of leaving a fragment of stone in the bladder after crushing than after lithotomy is one of the chief objections urged, but this is due rather to a want of thoroughness on the part of the surgeon than to a lack of completeness in the operation, for with a variety of evacuating cannulæ, both straight and curved, in competent hands, the chance of recurrence from retained fragments is very small indeed. The danger of retention of fragments is, however, greatly increased by any obstruction to the flow of urine, such as enlarged prostate. The bladder is then

more apt to be sacculated, and the chance of fragments being missed by the evacuator are decidedly greater. A healthy bladder would, no doubt, rid itself of such *débris*.

The State of the Urethra, Bladder and Kidneys.—Stricture of the urethra, in any part of its course, is no longer an obstacle to crushing, for it may be first dealt with either by divulsion or internal urethrotomy. If, however, an old, indurated, tortuous stricture exists, especially if complicated with fistulæ; or if the urethra is intolerant of instrumentation, and rigors and fever follow any attempt at dilatation, it will be necessary to cut, for this would permit the removal of the stone and the cure of the stricture.

Enlarged prostate does not prohibit litholapaxy if the necessary instruments can be introduced, and many brilliant results have been obtained in such cases, but it may be difficult or impossible to seize the calculus with the lithotrite, and, even if the stone be broken, there may be great difficulty in finding the fragments, and also the danger of leaving fragments behind while aspirating. Here the suprapubic operation, in the hands of the general surgeon, will be advisable.

In old men with enlarged prostates, where the necessary mechanical disturbance attending litholapaxy stirs up the vesical neck so that a cystitis, more or less intense and prolonged, follows the operation, E. L. Keyes, in a paper read before the Medical Society, New York, in 1892, pointed out that "these cases do well under lithotomy, and in them the suprapubic method should be adopted, because it allows the surgeon to deal at a single sitting, not only with the minor necessity—the small stone—but also with the more important and permanent disability—the enlarged prostate—by prolonging the superapubic lithotomy into a prostatectomy and making the patient's necessity the surgeon's opportunity."

Where the stone is encysted, or lodged in the opening of the ureter, or urethra, and cannot be dislodged, or a concomitant tumor or tuberculosis of the bladder exists, suprapubic lithotomy is the operation of election, for by no other method can both be dealt with. In diseased conditions of the bladder or kidneys, which so militate against the chances of recovery in all operative procedure, or in cases of unhealthy urine arising from either, the opinion of Sir Wm. Hingston, of Montreal, is to the effect that "the lithotrite is as safe an instrument as the lithotomist's knife. Nor should an attempt at the removal of a calculus by either method be delayed pending an effort—usually fruitless—to improve any of these conditions."

The Damage Done to Anatomical Structures and Interference with the Functions of the Part.—The especial superiority of litholapaxy to all other methods lies in the fact that, when

carefully performed, it involves no permanent injury to the parts, nor does it disturb any physiological function. Its sequalæ are few and rarely serious. Suprapubic lithotomy causes no permanent trouble, although a fistulous opening sometimes remains which refuses to heal, and is a constant source of discomfort to the patient. There may be difficulty in a very fat patient in reaching the bladder above the pubes, or in obtaining sufficient room to reach that viscus, owing to the close relations of the peritoneum to the pubic bone. Hemorrhage and urinary infiltration, with consequent sepsis, constitute the chief dangers of the operation. The presence of a wound in the bladder wall may be the cause of adhesions to the abdominal wall or pubes, and so interfere with the proper contraction of the fibres of the bladder, or a urinary deposit may take place on the scar and lead to a recurrence of stone.

The lateral operation passes through important structures. Incontinence of urine, fistula, injury to the seminal ducts, sometimes resulting in sterility, are objections urged against this operation. It often involves an extensive incision into the prostate, or serious bruising of the gland, by the necessary dilatation of the neck of the bladder, and the extraction of the calculus through it—a grave danger in old people. Profuse hemorrhage and injury to the rectum must also be taken into account.

An account of the various operations for the removal of stone would be incomplete without reference to perineal lithotrity, proposed by Dolbeau, in 1862, modified by Reginald Harrison, and described by him in the *Lancet* of September 22nd, 1888. Mr. Harrison, by a small median incision, opens the membraneous urethra on a grooved guide, digitally dilates the prostatic urethra and neck of the bladder, and then, by a giant lithotrite, introduced into the bladder, crushes the stone and removes the fragments by forceps or aspirator.

In the Bradshaw Lecture of 1896, Mr. Harrison points out the advantages of perineal lithotrity as follows: (1) It enables the operator to crush and evacuate large stones in a short time. (2) Less risk to life than other cutting operations, and is well adapted to the old and feeble, where for any reason crushing is inadmissible. (3) It permits of more effectual washing of the bladder and any pouches connected with it, as the route is shorter and larger tubes may be used. (4) The bladder may be more thoroughly explored by forceps or finger to ascertain that the viscus is cleared of *débris*. (5) It allows of efficient drainage of the bladder by rubber tubes, and treatment of cystitis due to retention of urine in pouches in its walls. This method is also well adapted for the cure of stricture in the deep urethra when complicating stone.

Perineal lithotrity, no doubt, has a great future, and on account of its safety may replace both lateral and suprapubic lithotomy. Forbes Keith, of Delhi, India, has operated by this method 157 times, with a mortality of 1.9 per cent. (*Lancet*, September 30th, 1893.)

In conclusion, the choice of operation may be briefly summarized, as follows:

1. Litholapaxy is certainly the operation of election in all simple cases of stone in the urinary bladder.

2. When the stone is too hard or too large to be crushed through the urethra or removed by the lateral method without injury, the suprapubic method should be adopted or, perhaps better, by perineal lithotrity.

3. When the stone is encysted or associated with a tumor of the bladder or prostate, choose the suprapubic route and remove both at the same time.

4. Where there is a tight, deep urethral stricture, especially when fistulæ exist, requiring a long operation to overcome, select the suprapubic or median perineal operation.

5. In anchylosis of one or both hip joints, which interferes with the use of urethral instruments, and excludes all perineal operations, do suprapubic lithotomy.

6. In the presence of foreign bodies in the bladder, which may form the nucleus of a calculas and resist the lithotrite, perform one of the perineal methods.

7. Although litholapaxy applied to children is very successful in the hands of experts, for the present lateral lithotomy is the safer operation for the general surgeon.

8. Litholapaxy should be carried out, whenever possible, when senile degenerations exist, or when there are morbid changes in the genito-urinary apparatus, and the necessary treatment afforded to the complication, either before or after litholapaxy.

MORBUS COXAE—ETIOLOGY AND DIAGNOSIS.*

By W. E. GALLIE, M.B., Toronto.

During my term on the surgical wards of the Hospital for Sick Children, I have had an opportunity of closely studying the course of hip-joint disease. Owing to the method of keeping clinical records of all cases admitted, some statistics have come to my hand which I hope will be interesting and instructive.

Since the building of the Hospital for Sick Children upon its present site in 1892, 318 cases of tuberculous disease of bone have been treated in its wards. These were distributed as follows:—

Hips	179	Spines	70
Knees	52	Ankles	9
Wrists	4	Metacarpal bones	1

Three main factors are recognized in the etiology of tuberculous disease:

First—The general predisposition of the patient to infection, a predisposition which may be hereditary or acquired.

Second—The local predisposition of the part, that is, the formation of a circumscribed area whose resistance to infection is less than that of the surrounding tissues.

Third—The source of infection itself, the tubercle bacillus.

Let us discuss, in the first place, the general predisposition of the patient. By this it is meant that the body fluids are less antiseptic than normal to the bacillus of tuberculosis. Authorities state that such a condition may be inherited from parents who have tuberculosis or who are themselves in a condition of predisposition to the disease. A study of the statistics of hospitals for consumptives indicates that heredity plays a large part in predisposition to pulmonary tuberculosis, some stating that if the inquiry is thorough enough a family history will be found present in practically all cases. This statement can not be so well applied to tuberculosis of bone. Of our 318 cases only 131 had any semblance of a tubercular family history, even when traced out among the uncles, aunts and cousins. We may say, then, that only one-third of our cases have any taint whatever of hereditary predisposition. Getting down closer to the patient, we find that only 73 out of the total of 318 cases were the children of tubercular parents. That is to say, only one quarter of all our cases had a direct family history. Comparing them, the proportion of tubercular cases

*Presented to the Post-Graduate Society of Toronto.

who have a history of the disease in the family with the proportion of children who are perfectly healthy and yet have relatives with the disease, it will be found that there is not sufficient evidence to justify us in concluding that tuberculosis in the parent particularly predisposes the child. Our statistics on this point compare very favorably with those of the Hospital for Ruptured and Crippled in New York. They have found that only 25 per cent. of some thousands of cases examined have any trace of tuberculosis in the family history, even a smaller proportion than we find here in Toronto. Of course, it may be suggested that the getting of a family history depends largely on the house-surgeon who admits the patient. It is a well-known fact that people dislike very much to admit that there is any hereditary disease present in the family, and it is possible that if the admitting physician is not careful he may overlook some small clue that would lead to a definite discovery. With this possibility in mind, during my term on the admitting department, I went very carefully into the family history of each case, with a result that in only one out of ten consecutive cases admitted was there any history of tuberculosis whatever. In view of these facts, I think I am justified in concluding that in determining whether a child is or is not to have osseous tuberculosis, family predisposition is of not very great importance.

But there is another factor which has a strong influence in determining whether an attack by tubercle bacilli shall be successful or not. This is the condition of antisepsis of the body fluids to disease germs in general.

It is a matter of common observation that weak, sickly parents beget puny, ill-nourished children. The parents of our tubercular patients are particularly noticeable as a pale, tired-out sort of people, not necessarily tubercular, but having simply that unhealthy appearance that indicates a low state of vitality. Naturally the children of such parents start out in life with a very small stock of resisting power to the onset of disease.

Added to this inherited predisposition are usually found many factors which still further tend to diminish the vital resisting power. The most potent of these is poverty. The majority of our patients have been ill-fed, dirty and ill-clad all their lives. Their hygienic surroundings have been of the worst variety—bad heat, bad light and bad ventilation combining to reduce still further their already small stock of vitality. As a natural result, over one-half of our patients were delicate children from birth, the parents giving histories of difficult feeding during infancy, a slowness of the growth and physiological development of the child, and a marked susceptibility to infectious disease. Usually the category of

the diseases of childhood is full—mumps, chicken-pox, whooping-cough, measles, scarlet fever and diphtheria appearing in their turns, and now the onset of tuberculosis shows that once again the weakened defenses have been broken down, and the penalty must be paid for disobeying Nature's laws.

Summing up the conclusions to which I have arrived on the subject of predisposition to tuberculosis in bones and joints, I would arrange the etiological factors in this order:—

Of greatest importance, a weakened vital resistance, acquired from any of the influences I have described. Secondly, inheritance of a low resisting power to infectious disease in general. And of least importance of all, what is commonly known as "heredity."

The second heading in the discussion of the etiology was local predisposition. Of our total of three hundred and eighteen cases, one hundred and thirteen, or over one-third, gave a definite history of injury. A typical history of these cases, as we receive them, is somewhat as follows:

Two months ago, Johnnie fell on the ice and severely injured his knee. For a few days he limped about with considerable difficulty, but gradually the pain and stiffness disappeared, until finally the only indication of an injury was a slight limitation of movement in the joint. Six weeks later it was noticed that he began to limp again, and so on the various symptoms proceeded to assert themselves.

The presence of that bridge of slight limitation of movement between the actual injury and the onset of the typical symptoms leaves no doubt in my mind that the injury was the direct cause of the disease. Frequently, of course, you find cases where the injury was of some trivial character, such as a slight bruise or twist, and in these the signs of trauma have completely disappeared before the onset of the symptoms of tuberculosis. But the uniformity with which we find these patients giving a history of injury at a certain definite interval, four to six weeks before the onset of the disease, proves conclusively that trauma is a potent factor in aiding the growth of the bacillus of tuberculosis.

The statement was made above that over one-third of our cases gave a definite history of injury. This, however, does not give a correct idea of the important part injury plays in the etiology of the disease. In the total number of cases treated here are many from whom it would be impossible to get such a history, even though there had been a definite traumatic influence. For instance, children under four years of age might easily have had a fall, of which the parents knew nothing, and as a result our statistics would suffer. To get over this difficulty I have picked out the histories of the

tuberculous hips and knees over four years of age, a total of two hundred and five, and of this number, ninety, or practically one-half, give a history of injury. So that by excluding those cases that could not possibly give a history of trauma, we have increased our proportion from one-third to one-half. But it is also possible that many of these cases, over four years of age, from whom we have obtained no definite story of injury, may have met with some slight accident, such as a bruise or sprain, quite sufficient to start bacterial growth, but which the patient has never noticed at all. To prove that this is the case, let me return to my statistics again. Of those two hundred and five cases of tuberculous hips and knees, one hundred and twenty-one were on the right side and only seventy-eight were on the left. That is, practically two-thirds were rights and one-third lefts, or the number of rights was double the number of lefts. Now all children use the right side of the body more than the left. Among boys playing football it is considered a rare quality to be able to kick with the left foot as well as with the right. If you will notice boys playing hockey or racing on the ice, you will find that in making a turn they usually go to the left so as to use the right foot to better advantage as a means of propulsion, so that I think we are perfectly safe in stating that the right foot and leg are the ones most constantly subjected to work, and consequently to strain or injury. The fact, then, that we have twice as many rights as lefts is easily explained by the theory, that infection may be favored by the numerous little jars and strains, which, although they arouse no comment at the time, nevertheless result in injury to the tissues.

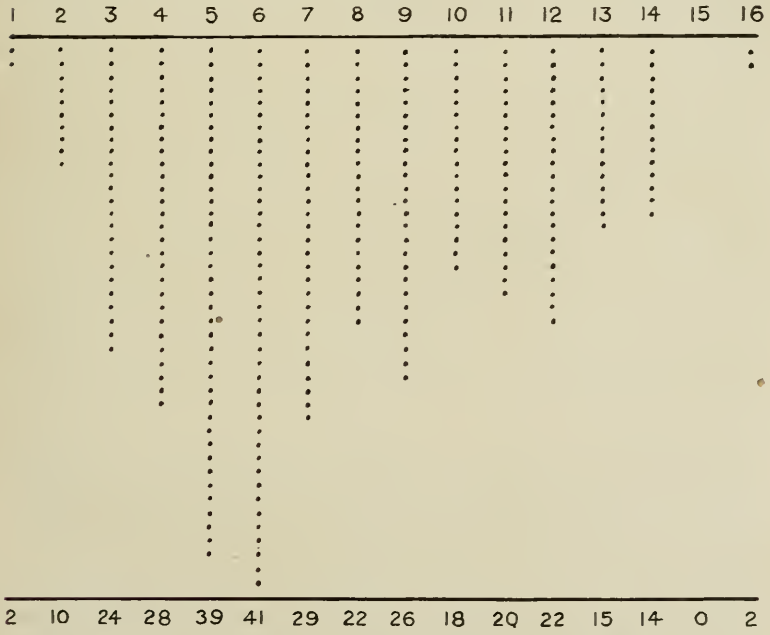
One more proof that injury is a very important factor in the onset of tuberculosis. We find that out of a total of one hundred and twenty-one cases of hips and knees, on the right side, only thirty-four give a definite history of injury; while out of a total of seventy-eight lefts, fifty date the onset of symptoms from some fall or blow. That is, only one-quarter of the rights, as compared with practically all the lefts, have a history of following trauma. Now, as we said above, the right side of the body is much more used than the left, so that it is much more prone to little additional jars or strains which may be entirely overlooked. On the other hand, the left side is not as much used, and injury to it is much more likely to be noticed than on the right, and as a result we find that practically all the lefts have a history of definite injury. So that, to summarize, we find that on the side where the proportion of injuries which are slight and liable to be overlooked is the greater, the number of injuries recorded is much less than on the side where minor injury is not so likely to occur. Reasoning backwards from

this we arrive at the same conclusion, that injury or overuse is the starting point in the onset of the disease.

It is of interest to note just here that of our total number of tubercular patients fifty-nine per cent. were males and forty-one per cent. females. It is well known that boys play and hurt themselves much more than girls do, so that the statistics simply add additional evidence to prove the conclusions just arrived at.

Before leaving the subject of the influences which favor the growth of the specific germ I shall give a little space to a discussion of the age at which tuberculosis attacks the bones and joints of the body.

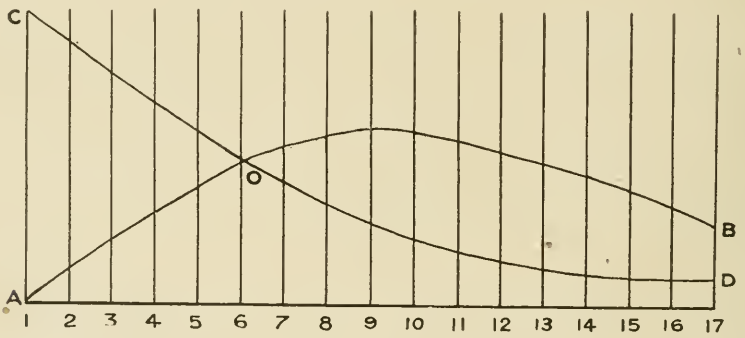
I have here the original sheet upon which I made up the totals of the various ages, and as it stands it gives a more graphic idea than figures of the period at which the disease is most prevalent.



You will notice that the columns representing the cases of the age of five and six are much longer than any of the rest and that as you go farther away from these on either side, the length of the column gradually diminishes. That is to say, starting at the first year of life and advancing to the sixth year, the number of cases increases, but after the sixth year the number diminishes until about the seventeenth year no more new cases occur. A study of this remarkable regularity of rise

and fall with the maximum point at the age of six gives food for interesting discussion. In explanation of the fact let me advance the following theory:

You will notice that in the first year of life there are practically no cases of tuberculous disease of bones or joints. This is explained by the fact that there is comparatively small chance of injury during that period and consequently, as we decided above, a proportionately small chance of the onset of the disease. But as the child grows older his liability to injury increases, until about the seventh or eighth year, which may be described as the clumsy age, he gets more knocks and bumps than at any other time. But the younger a child is, the more prone he is to infection by bacteria, that is, as a child grows older his resisting power to bacterial growth becomes proportionately stronger, until finally at the age of eleven or twelve, he has reached a state of comparative immunity to infectious disease. Let us represent graphically what we have thus far stated.



Let the line *AB* represent the gradual increase in the liability to injury from one year of age to the age of eight or nine, when it slowly begins to fall again, and let the line *CD* represent the liability of the child to infection, falling from its maximum in the first year to its minimum beyond the ages of twelve or thirteen. The point at which these two lines cross, namely at *O*, in the line representing the sixth year, indicates the time at which the child is most liable to the disease. That is to say, the time in the life history of a child at which he is most liable to injury, and at the same time least able to resist bacterial growth, which happens to be the sixth year, is the time when is he most liable to the onset of tuberculosis in bones and joints.

Besides this explanation, there is another which shows why the bones and joints are particularly chosen as the seat of the attack during this definite period. At this time, the ends of the bones

become the seat of great activity among the blood vessels. The capillaries are found to be dilated, blending with one another to form large sinuses, until finally, when examined histologically, the ends of the bones, and particularly the epiphyseal lines, are seen to be converted into strictures very much like cavernous angiomata. It is very easy to imagine that if the tubercle bacilli happen to be passing along in the blood stream, they will be much more easily filtered out and caught by such an irregular mass of blood vessels than by the ordinary smooth-walled capillaries.

Another theory that has been advanced as an explanation of the frequency of disease of the bones and joints at this age is that cells concentrating their energy upon reproduction lose in so doing a part of their power of vital resistance. The epiphyseal lines between the ages of three and nine are the seat of rapid reproduction of the bone-forming cells, so that it is possible that upon this depends the prevalence of osseous disease at this period.

I shall now pass on to a discussion of the third heading under which it was proposed to deal with the etiology, that is, the infective agent itself, the tubercle bacillus. In the first place, the question arises, how do the bacilli reach the tissues affected? This is easily answered when we consider that the only moving medium that could carry particles from place to place is the blood. That tubercle bacilli do circulate in the blood is a proven fact, since examination of the urine of perfectly healthy people will frequently show the presence of bacilli that have been excreted by the kidney. We are now confronted with the question, how did the bacilli get into the blood? In answering this, we are much assisted by a study of the statistics of autopsies performed on children who have died from other causes than tuberculosis. Out of seven hundred and sixty-nine cases examined post mortem at the hospital for children, Great Ormond St., London, two hundred and sixty-nine presented tuberculous lesions. Of these fifty-seven per cent. were found in the bronchial and cervical glands, and twenty-three per cent. in the glands of the mesentery. In the great majority of these cases the disease was not active, and on that account this form of glandular disease has been called latent tuberculosis. The mode of infection is very plain. The bronchial glands drain the lymph from the lymphatics of the bronchi so that the bacilli must have come from the bronchial mucous membrane, upon which they were deposited by inhalation. In the same way the tuberculous cervical and mesenteric glands point to the mucous membrane of the mouth and intestine, respectively, as their particular source of infection. In many cases, notably those of the two hundred and sixty-nine autopsies just recorded,

this tuberculous condition may remain latent and finally die out; but in others small particles become dislocated from the glands, and getting into the general lymph stream, finally reach the blood, and so pass on to some part where conditions are favorable to setting up local disease.

Besides this road of infection by means of the lymph stream, there is another which of late years has been given a place of greater importance. You will remember that the tonsil is formed on the surface somewhat like the cortex of the brain, convolutions alternating with sulci or crypts. Covering the surface of the gland is a mucous membrane, formed of several layers of cells, and this mucous membrane dips down into the crypts, making in adults a complete external coat. But in children it is found that in places, deep down in the crypts, the mucous membrane becomes extremely thin and sometimes disappears. Owing to this loss of epithelium, the blood, with which the gland is very plentifully supplied, comes into almost actual contact with the contents of the crypts, so that germs could easily pass directly into the blood stream. Now it is reasonable to suppose that among the many bacteria that live deep down in the tonsillar crypts the tubercle bacilli may easily be present, and without leaving any indication of the avenue of infection, pass into the body fluids.

Besides the tonsil, open wounds offer an avenue of entrance directly into the vessels. If the bacilli are lying about on the instrument causing the wound, or on the skin of the surrounding surface, they might easily be drawn into the open vessels and carried away by the blood.

That germs do frequently get into the blood and set up tuberculosis, without any other focus of disease being present, is demonstrated by the investigations of Koeing, who found that in fourteen out of sixty-seven autopsies on subjects who had suffered from tuberculosis of bones or joints, no other lesions whatever could be found.

Early Symptoms and Diagnosis.

The frequency with which a mistaken diagnosis is made in cases of morbus coxae is astonishing. Instead of getting the patients early in the disease, the majority of our cases have been suffering a year or more, during which time they have been treated for anything but tuberculosis. Case after case comes in with a history something like this:—

Johnnie fell on the ice a year ago and hurt his hip. Six weeks later he began to limp. He was treated for rheumatism for a month or so when it was decided that the pain about the hip and knee indicated sciatica. The local treatment for sciatica was then pursued for some time, until finally the gradual

progress of the disease caused an awakening to the fact that tuberculosis was present.

Another error frequently made is to completely mistake the joint affected. Several cases were admitted during any out-door term, in whom the knee had been blistered and otherwise treated for months, simply because the patient had complained of pain in that particular joint. The frequency of these and similar errors in diagnosis is a sufficient indication that the greatest care must be taken in dealing with cases that may possibly have disease of the bones or joints.

Limp is the most important of the early signs of the disease. It is due entirely to sensitiveness rather than to any restriction in the movement of the joint, the patient simply spending less time on the affected than on the healthy leg. It is noticed that he walks with a combination of flexion of the thigh and plantar flexion of the foot, the whole object being to make the limb more elastic, and thus prevent jarring at the hip. The degree of limping often varies in the course of a day, being usually worse in the morning or after a rest of any kind.

Very early in the disease pain may become a prominent symptom, although more frequently it does not assert itself until the process is pretty far advanced. The characteristic pain is not in the hip but on the inner side of the knee, and hence the errors in diagnosis that so frequently arise. In seven out of the ten cases that I admitted, the pain was referred to the knee, and in the other three it was seated in the hip. This peculiarity is readily explained when we remember that the same nerves that supply the hip joint also send terminal branches to the knee. Following the general rule, that pain along the course of a nerve is interpreted as arising at its terminal branches, it is easy to see how the knee is indicated as the part diseased.

The pain of hip disease is induced by sudden or unguarded movements or by injury, although there is sometimes present a dull ache which is wholly due to increased tension within the joint.

It will be well to note here a symptom occurring in acute cases, which is of very great importance from a standpoint of prognosis. This is night-cry. It is a symptom present in many of our hospital patients, so that I have had a good opportunity of observing it and the accompanying phenomena. The child is usually sleeping quietly with all his muscles relaxed, when suddenly he involuntarily moves in his sleep. The movement causes the diseased bones to rub together, and instantly all the muscles surrounding the joint contract to protect the site of disease. This sudden muscular contraction drives the head of the bone with great force into the acetabulum, the result of

which is a spasm of acute pain, evidenced by a loud piercing cry. The child then sobs for a minute or two, never entirely gaining consciousness, and finally falls fast asleep again. This sign is of importance from a standpoint of prognosis, because it gives some idea of the extent to which the disease has advanced. That the slight rubbing together of the bones results in reflex muscular spasm, means that the ends of the bones are rough and diseased. This is a sure indication that the process is no longer confined to the interior of the bone, but that it has invaded the cavity of the joint.

The other symptoms of the disease, which are more properly termed physical signs, are stiffness, distortion, change of contour of the hip and atrophy.

Stiffness, due to reflex muscular spasm, is by far the most important sign, coming probably before the limp and remaining until repair is complete. If an attempt is made to force the limb beyond the limit set by muscular resistance, the whole body follows the movement, and the expression on the patient's face shows discomfort and apprehension. It is always a sign of a sensitive joint, and unless it is the direct effect of injury, indicates disease. In the early stages it is due entirely to reflex muscular spasm, as is shown by its disappearance if the patient is anesthetized, but, of course, as destruction of the tissue goes on in the joint, adhesions and contractions develop which still further accentuate the symptom.

Distortion of the limb may occur early in the disease, and its character depends on the degree of the intensity of the process. If the attack is of a mild variety the limb will be in what is usually described as the first position, namely, flexion, abduction and external rotation. This position may be described as the attitude of disuse. It is the position assumed by perfectly healthy people when tired by long standing, that is, they throw all the weight on one leg, and let the other simply hang out at one side to act as a prop to maintain the body equilibrium. Another explanation of this position is based on the increased tension in the joint. It has been found in the dissecting room, that by filling the joint with water, injected through the bottom of the acetabulum the limb immediately becomes flexed, abducted and rotated outward. The reason is, that in this position the cavity of the joint is increased to its maximum capacity, and is thus accommodated to the increased pressure of the water. Similarly, in tuberculous disease of the hip, the increased tension demands the maximum amount of room in the joint, and as a result the first position is assumed. This latter explanation is probably the correct one for the phenomenon, when the disease has reached the joint itself, but the former accounts very well for the position when the process is confined to the bone.

If the disease is acute in character, we get what is known as the second position. This is, flexion, adduction and internal rotation. Here the spasm of the muscles in their attempt to protect the painful joint comes into play, and the stronger muscles decide the attitude of the limb. It happens that the flexors, adductors and internal rotators are stronger than the extensors, abductors and external rotators, so that the resultant of the spasm of all, is the position of the second stage. Contrasting the two positions as the patient lies in bed, as I have had an excellent opportunity of doing in the case of a boy whose right leg was in the first and whose left was in the second position, we have a picture something like this:

The leg in the first position lies in an attitude of rest upon its outer side, pointing a little away from the median line of the body, and easily movable to a limited extent. The other is inverted and drawn tightly in towards the middle line and is absolutely rigid.

Resulting from these acquired positions, we have several others which try to hide the deformity. Thus, flexion is partially hidden by an increased lordosis in the lumbar vertebre, a circumstance which must be remembered in the examination of the patient. The abduction of the first stage and the adduction of the second, result in the elevation or depression, respectively, of the diseased side of the pelvis, in order that the two limbs may remain parallel. In consequence, if measurements be made from the umbilicus to the malleolus, there will be found apparent lengthening in the first stage and apparent shortening in the second. In the examination of the patient it is as important to note these masking deformities as to note the original distortion, since one is as characteristic of the disease as the other.

Of course, when the disease is very far advanced, and bony changes have taken place, within the joint, all sorts of deformities occur which follow no set rule whatever. It is not with these, however, that we, as young practitioners, have to deal when meeting a case for the first time, so that I shall pass over them without further remark.

Examination of the region of the joint itself will often, in the early stages assist in corroborating a diagnosis of hip disease. In practically all cases at the Children's Hospital, the inguinal glands are markedly swollen, and the superficial veins blue and distended. Palpation will often give the sensation of an indurated inflammatory area, although there may be no sign of abscess formation. The changes in contour about the joint are largely due to the position assumed by the limb and to the atrophy which takes place in the thigh.

As a sign of hip disease atrophy is of importance, because

of the great assistance it affords in arriving at a correct estimate of the length of time disease has been present. The explanation of its occurrence has given rise to much interesting discussion, but the consensus of opinion is that it is due to two main factors, physiological disuse and reflex interference with the trophic centre in the cord. That it is not entirely due to physiological disuse is easily demonstrated by measuring the limbs of boys who have been in the hospital for two or three years, and who have used their healthy legs practically as little as their crippled ones. It will be found that the diseased limbs have still a smaller circumference than the strong, proving conclusively that some other influence has been at work. It will be remembered that the nerves which supply a joint come from the same segment of the cord as those supplying the surrounding muscles. We also know that the centres governing the nutrition of the part are in the anterior cornu of the same segment of the cord, so that it is very reasonable to suppose that the constant irritation of the disease sets up stimuli, which upon reaching the cord pass to the anterior cornu and are reflected down the trophic nerves, causing atrophy and retardation of growth.

In examining cases which present symptoms indicating morbus coxae, it is well to follow a regular routine. I shall describe that which is used at the Children's Hospital in writing up the history for the orthopedic surgeon.

A few questions usually suffice to give the admitting physician a clue to the nature of the affection. He then makes a rapid examination to convince himself that hip disease is present, and proceeds with his regular routine of inquiry on family history, previous history, and the history of the present illness.

He makes every effort to get a trace of tuberculosis in the family, and if not in the parents he goes on to the grandparents, uncles, aunts, etc., finding out exactly at what age and of what ailment each of the deceased died. He also makes inquiry as to the general health of the family, making note of the appearance of the relatives who have brought the child for admission.

Having satisfied himself on this score, he passes on to a rehearsal of the patient's previous history. Under this head he makes careful inquiry as to the child's general health, finding out whether he has been delicate or not, and testing the accuracy of the statements by questions as to appetite, bowel movements, etc. Note is then made of the variety, intensity and duration of the infectious diseases the child may have had, care being taken to see if there is any relation between them and the present affection of the hip.

He then passes on to the history of the present illness. History of injury is inquired for and the time that elapsed between the fall and the onset of symptoms noted. The length of time that symptoms have been present is very important and is asked for especially. Notes are made on the limp, night cries, pain in the knee or hip, and anything else that the parents will volunteer.

A thorough examination of the patient is now proceeded with. After remarks have been made upon his gait and general appearance he is completely stripped and placed in a recumbent position on a table. The region of the hip is then examined, and all limitations of movement, change of contour and all signs of inflammation carefully noted. It is well to notice that in examinations of a diseased hip the healthy limb is made the model upon which the crippled one is judged. Certain measurements are then made. These are the distances from the umbilicus to the internal malleoli to get the apparent lengthening or shortening, the distance from the anterior superior spines to the malleoli, for any actual shortening, and the circumference of the thighs and calves, for an estimate of the amount of atrophy that may have taken place. A description of the deformity follows, and in the case of flexion and extension this is also reduced to figures, the angles of greatest flexion and extension being obtained by the use of an instrument, or approximately by the eye. To estimate the degree of flexion, the patient is placed flat on his back and the diseased leg raised, or the healthy one flexed on the abdomen until the lumbar lordosis disappears. The angle that the diseased leg then makes with the table indicates the flexion of the limb.

In conclusion, let me make an earnest appeal for the careful examination of every child whose limp or "growing pains" could possibly mean tuberculosis. The terrible suffering that it has been my misfortune to witness in many of these little children, could, I feel convinced, have been avoided had the seriousness of the condition been recognized early and treatment begun before the dread disease had gained the upper hand.

Selected Article.

JAP MILITARY MEDICAL SERVICE.

By G. S. RYERSON, M.D., Toronto.

The war between Japan and Russia is arousing so much interest at the present time, that it would seem a short account of the medical arrangements of the two armies might prove of interest. The succeeding remarks are founded on an excellent report by Col. William Taylor, now Surgeon-General Sir William Taylor, D.G., who was sent out by the Imperial Government to observe the medical service in the Chino-Japanese war of 1894.

The Japanese regiment of infantry consists of three battalions of four companies each, of a total strength of 2,400 officers and men. In each regiment there are forty-eight regimental bearers, distinguished by a red band worn above the elbow of the left arm. The scope of regimental medical service in action comprises medical aid in the fighting line and at the dressing stations. These stations are closed when the bearer companies begin their work. The medical officer and his assistants are employed at the front under fire at the temporary dressing stations referred to, but the Japanese regulations require the regimental medical service to keep well closed up with the fighting line, and to conform to its movements. The equipment is similar to that carried by all armies, but is very liberally supplied. The medicines are of the usual European kinds, morphia, iodoform, Hoffman's anodyne, etc.

The bearer company forms a divisional organization, consisting of a central administration and two subdivisions of three sections each, of a total strength of 416 officers and men, and fifty-one horses. There are ten medical officers and four pharmacists. This column is under the control of the division commander, who is advised by the chief of the division medical staff. Each bearer column bears the name of the division to which it belongs, and is organized so that it can at any time be divided into two equal parts. Ordinarily one-half marches with the advance guard and the other half in the main body. The function of the bearer company is to act between the dressing stations and of the field hospitals.

The dressing station is divided into three sections, indicated by flags of different colors. 1. Receiving and forwarding section (blue flag). 2. Operating section (white). 3. Dressing section

(red). The dressing stations are, in addition, distinguished by the Geneva Red Cross flag by day, while they are marked by red lanterns at night. The identification of patients is secured by a metal label worn by all ranks. The registry of all property is also provided for. The medical and surgical equipment of the bearer column consists of four panniers, eight reserve panniers, ninety-six stretchers and two tents, for the carriage of which thirty-six horses are allotted. The stretcher is made of bamboo with canvas bottom and movable cross piece. Most of the land carriage of patients is done with these stretchers and the native springless carts. There does not appear to be a provision for ambulances, though I understand a large number have been ordered from a firm in the United States for the purposes of the present war.

Field Hospitals.—There are six field hospitals in each division, three are with the first line of transport and three with the second. Their function is to receive patients from the dressing stations or direct from the fighting line, to continue or complete the treatment previously received, and to be prepared for rapid evacuation should it become necessary. The *personnel* of these field hospitals for each division consists of forty-eight officers, 108 non-commissioned officers, 510 men and 264 horses. The quota of patients for each hospital is 200.

Transport.—Passing from the field hospitals to the rear along the lines of communcation to the base, the patients are in the hands of the hospital transport corps. There is also a reserve medical staff and a reserve medical store.

The supreme medical control is vested in a field medical commander, who is chief of the medical department of the war office, and, during war, serves with the grand headquarters of the army, and with him he has a personal staff of four. The army is also supplied with hospital transports and a hospital ship. The latter has accommodation for fifty officers and 200 men (patients).

General Hospitals at the Base.—The reserve hospitals are established either within military garrisons or without, and bear the name of the locality where they are located. They have an establishment of from forty-two to seventy officers and men of the hospital corps.

The Red Cross Society.—The Red Cross Society was inaugurated in 1886 and had, in 1894, since largely increased, 75,902 members, employing 1,170 medical officers, female nurses and orderlies.

The first aid dressing used is Dr. Kikuchi's straw ash pad. It consists of straw ashes, freed from grit and put in muslin bags. Applied directly to the wounds, it is said to be very absorptive and aseptic. If there is no discharge from the wound

it is applied dry, but if it discharges freely the pad is first soaked in bichloride solution.

It will be noticed that the Japanese are supplied with very liberal and adequate medical service, and General Taylor speaks in glowing terms of the devotion and bravery displayed by the bearers in bringing wounded men in under fire. The free use of voluntary aid through the medium of the Red Cross Society is noticeable. I think that it is admitted that no nation maintains, even in time of war, a sufficient medical staff to meet the requirements. It will be remembered that during the late South African war the St. John Ambulance Association supplied upwards of two thousand trained orderlies for hospital work, and that the Red Cross Society contributed more than three million dollars' worth of supplies for the sick. It is painful to think what would have been the fate of the sick and wounded without this adventitious aid. We ought in this country to develop these societies, especially the ambulance association, as a reserve for the army medical corps, for trained orderlies cannot be improvised at a moment's notice.—*Can. Lancet.*

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, H. J. HAMILTON, C. J. COPP AND F. A. CLARKSON.

Inoculation of Syphilis in Anthropoid Apes.

Last year we dealt with the report, made by Roux and Metchnikoff to the Academy of Medicine of Paris, on the positive results obtained from the inoculation of syphilitic virus in a young female chimpanzee. The same authorities recently reported (*Annales de l'Institut Pasteur*) that they had been able to transmit syphilis to a male chimpanzee, inoculating it with material obtained from the former animal. They made two inoculations: one, in the penis, with material obtained from the syphilitic ulcer, which appeared in the first animal on the forty-fifth day; the other, in the thigh, with scrapings from a papulo-squamous eruption. Both inoculations gave rise on the thirty-fifth day to syphiloscleroma. Unfortunately the animal died one month and a half after the appearance of this lesion, without presenting symptoms of general infection.

Lassar communicated to the Society of Medicine of Berlin, at a recent meeting, the statement that he had inoculated a male chimpanzee with particles of material from a syphilitic ulcer. This material he had obtained from a young man who had contracted syphilis from tattooing. He had had no treatment, and presented, besides the syphilitic ulcer, secondary symptoms, that left no doubt as to the diagnosis. The small wounds of inoculation cicatrized, but two of them, situated over the right eyebrow, became hard on the fourteenth day, assuming the typical syphilitic appearance. A third lesion appeared soon afterwards on the median line of the forehead. Subsequently there appeared an eruption of rounded spots, with edges slightly raised, centre a little depressed, arranged in groups on the palmar, plantar and anal regions. At the same time the animal's skin became shiny in several places.

The histological examination of one of the lesions of the forehead showed, in the superficial arteries of the skin, changes analogous to those which characterize syphiloscleroma in man (a process of *endo* and of *periarteritis* with thickening of the arterial walls and infiltration of the adventitious coat).

Lassar subsequently inoculated in the penis of an orang-outang, material from a syphilitic ulcer which had not been treated. Sixteen days later there appeared a lesion on the site of inoculation.

At the same meeting Friedenthal reported that he had inoculated a chimpanzee and a gibbon with material from a syphilitic ulcer. Locally the inoculations produced no result, but later there appeared in the two animals a vesicular eruption with swelling of the glands, which in one case was symmetrical.—Translated from *Giornale Internazionale delle Scienze Mediche*, by HARLEY SMITH.

Salt and Nephritis.

Widal and Javal (Paris), by a number of careful experiments, were able to prove that in parenchymatous nephritis the retention of chlorides produces hydration and edema. With a patient suffering from this disease, they could at will produce anasarca by increasing the amount of chlorides in his food. They found also that the degree of albuminuria follows the oscillations of the chloride retention curve. When salt was almost entirely eliminated from the diet, the patient decreased in weight, and the edema and albuminuria disappeared, while an increase of the chlorides in the food again soon caused a return of these conditions. They further noted that by careful weighing they could prognosticate the onset of albuminuria and edema. For example, in the patient upon whom they experimented, a weight above 62 kilos was accompanied by anasarca, and the edema always disappeared when the weight reached 61 kilos. Their conclusions are that it is not so much the kind of food used as the amount of salt consumed which produces the ill-effects in nephritis. They gave a milk diet, to which was added a quantity of salt, and the patient did badly, whereas on meat of all sorts, and little else, but always unsalted, the patient rapidly recovered. The average amount of salt required per day for a healthy man is about 10 gms. (150 grains). They emphasize the point, however, that it is not the amount of chlorides excreted which must be taken into account, but the relation of the amount absorbed to the amount thrown out of the body by the kidneys.—"International Clinics," Vol. I.

OPHTHALMOLOGY AND OTOLOGY.

IN CHARGE OF J. T. DUNCAN, M.B., M.D., C.M.

Sarcoma of the Orbit—Report of a Case Cured by the X-Ray.

In the "Archives of Ophthalmology," L. Webster Fox details this case. The patient came for treatment in March, 1903, being twenty years of age. For six weeks she had noticed a gradually enlarging swelling of the left naso-orbital region,

which was forcing the eyeball out of the orbit. Vision, however, was still normal. The diagnosis (confirmed by the microscope) was of malignant growth—sarcoma.

Various lines of treatment were tried, including surgical, with but partial success. As a last resort the X-rays were tried, as follows: For the first four weeks, one application per day; for the next two weeks, three per week; then two per week, then one each week, and latterly one every two weeks.

The earlier sittings were in length about five minutes, the later ones about ten minutes. Altogether the treatment extended from May 25th to November 21st, or about six months. While a single case does not prove that X-ray treatment is capable of curing all such cases, it does show a possibility of bringing about a favorable result, the importance of which must not be ignored.

Inflammations of the Iris.

In the *Birmingham Medical Review* for November, 1903, Owen in a somewhat exhaustive paper on this subject reminds us that heat and cold are useful in relieving pain and reducing inflammation. Of the two, heat is by far the more valuable; only in the early stages of iritis is cold likely to be advantageous, while moist heat in any stage is advantageous.

Leeching is a method formerly greatly employed, but not so much used at present. But abstraction of blood has this advantage: when pain or congestion is excessive, or when the pupil refuses—due to over engorgement of the vessels of the iris—to respond to the use of the mydriatic, the temporary anemia induced by bleeding is advantageous.

Counter-irritation used to be applied with vigor in the acute stages of the disease. It is useless and worse, for it increases the patient's misery.

The pain in iritis calls for special treatment. It is, as a rule, so much worse at night that unless some composing draught is given the patient is worn out by the unceasing pain. Opium in one form or other is most valuable. Great relief is obtained also from antipyrin and phenacetine. Chloral and bromide of potassium, alone or together, are useful for night draughts. A good deal of advantage is gained by free sweating. This may be induced either by hot air or vapor baths, or by the subcutaneous injection of a tenth to a third of a grain of nitrate of pilocarpine.

It need hardly be said that from the first the patient suffering from iritis should be kept at rest; the eyes should be shaded from light and kept more or less constantly covered. It is well, if opportunity allow, to begin the treatment of iritis by a brisk purgative, and when the effect of this is over, let the

cause of the disease be what it may, mercury is invaluable in the early stages. It may be given as small doses of calomel combined with opium every few hours, until the first evidences of constitutional effect are manifest. By this means exudation is controlled, and any adhesions which may have formed stand a chance of being removed by absorption of the freshly exuded matter.

This stage in the treatment being reached, any specific remedy indicated by the cause of the disease may be employed. In syphilitic cases mercury should be continued; it is the remedy of all others. Whether small doses should be continued by the mouth, or whether inunction should be used, or any other form of exhibition, is greatly a matter of opinion. The more acute the case, the greater the need for rapid saturation of the blood by mercury, and small doses of calomel given as above indicated form the best means. In later stages inunction is valuable.

In rheumatic iritis the salicylate of soda in 15-grain doses every three or four hours is an admirable remedy, the benefit of which is specially marked in the painful stages—in fact, it does not matter what may be the origin of iritis, this remedy seldom fails to be of use. In the gonorrheal form, alkalies, particularly the iodide and bicarbonate of potash, and large doses of the benzoate of soda, combined with quinine or tincture of cinchona, are most useful.

Where a gouty element seems to prevail, alkalies with colchicum act like a specific. In cases of iritis occurring in diabetes, salicylate of soda is useful. In tuberculous iritis, quinine, iron, and arsenic, with cod-liver oil, and careful hygiene, should be employed.

The Necessity of a Knowledge Among General Practitioners of the Diagnosis and Treatment of Glaucoma, is the title of an article by D. B. St. John Roosa in the *Medical Review of Reviews.*

Glaucoma is a disease which ought to be better known by the all-round practitioner than it is. Were it so, many cases of inoperable and incurable forms of this disease would not present themselves in this state to the specialist. There are, perhaps, certain affections of the eye which the general practitioner may ignore—for example, cataract and strabismus—but inflammatory affections which run a rapid course, and end in irreparable damage to the sight, should be diagnosticated at the earliest possible moment. Glaucoma belongs to this class of diseases. Without attempting to enter into a discussion of the true nature of the disease, the object of what I am writing at

this time is simply to reiterate my suggestions for a simpler nomenclature, and to call renewed attention to a marked symptom which will enable any observing practitioner to diagnosticate the existence of glaucoma. I can see no reason why we should have any other nomenclature than *acute* and *chronic* glaucoma—with a subclassification of primary and secondary glaucoma. Hardening of the globe or increased tension, a pathognomonic symptom, always present when there is glaucoma, should have been the name. When the eyeball is in a state of increased tension, so that it is sensibly hard by comparison with normal eyes to the fingers placed on the closed lids, in a palpating method as if searching for fluid—a comparison perfectly easy to make—that is either primary or secondary glaucoma. In addition to this chief symptom, which, even if no other objective one exists, marks the disease as glaucoma, will generally be found a redness of the eyeball in the circumcorneal region, a dilated pupil, a watery eye, and, perhaps, a very great deterioration of vision, with failure of accommodation. In addition to this there may be an important subjective symptom—a halo around lights. Rainbow colors seen especially about a candle flame, or the like, although a subjective symptom, is a very suspicious and alarming one. If we add to the picture the very important fact that patients generally suffer severe pain of a neuralgic character, we have the disease, acute glaucoma, which ought at once to receive operative attention. The operation demanded is an iridectomy; which is almost always successful when done early enough. But if the condition has been allowed to pass into chronic glaucoma, iridectomy has none of the efficacy which it has in the acute form of the disease. The above fact shows the importance of an early diagnosis of glaucoma. But, even if it be diagnosed, it is not always possible to have an operation at once. In those circumstances, Roosa strongly advises the use of oily solutions of eserine. He has given this means of treatment a fair trial, and thinks it ranks among the best for inoperable cases of glaucoma, and in chronic glaucoma he is rather inclined to increase the field of inoperable cases than to diminish it. He thinks the claim is a just one, that these oily solutions are more rapid in action and more durable in effect. They are employed three to four times in twenty-four hours, and followed by fomentations of hot water for, say, twenty minutes.

The author points out the great danger of using atropia in any form of glaucoma, and says, "The general practitioner ought, for this reason, among the many others, to be able to diagnosticate glaucoma, lest he aggravate the conditions by dropping atropine in an eye having the prodromal symptoms of glaucoma, or even induce it in a suspicious case. While atropia

is one of the very best remedies, of the widest usefulness in ophthalmology, it is of the greatest harm in glaucoma, as may be many mydriatics." An error in the diagnosis of glaucoma will lead to the complete loss of sight. The means of relief are so simple that they can be carried on in any household where circumstances render it impossible for the patient to be put under special care. The eserine can be used by virtue of its being used in oil, in the strength of two grains to the ounce, or even, in some cases, three to four grains to the ounce. I find castor-oil the best of the oils as a vehicle, and if afterwards fomentations are used for a period of not less than twenty minutes, the pain usually caused by strong solutions of eserine does not occur.

A number of illustrative cases are given. It will be sufficient to quote one of them, a case of glaucoma, supposed to be cold settling in the eye, without treatment directed to the disease for a year. One eye lost:

"Mrs. L. E. M., aged 66, May, 1903. The patient states that a year ago last February 'cold settled' in the left eye. It was treated by a physician for more than a year. An opacity of the lens began at that time. She sees a halo, rainbow colors, around a light. The left pupil is dilated and fixed, the lens opaque tension +. There is no perception of light. In the right eye the vision becomes $\frac{2}{30}$ + with glasses, but the tension is also +. With the ophthalmoscope, the right optic papilla was found to be excavated. Eserine in castor-oil was dropped in four times in twenty-four hours. In a few days the tension in the right eye became normal, and the subjective sensations were removed. The tension of the left eye also became normal, although, of course, it remained sightless."

PEDIATRICS.

IN CHARGE OF ALLEN BAINES AND W. J. GREIG.

Relation of Certain Extra and Intra-Cranial Hemorrhages in the Newborn. (J. Howell Evans, *Brit. Journal of Children's Diseases*, May, 1904.)

The writer means the extra-cranial and extra dural cephalhematomata on the one hand and the meningeal or cortical hemorrhages on the other, and he considers only those hemorrhages connected with the parietal bone. He notes the presence of foramina in the parietal bone through which an artery and vein pass, thus forming an important vascular communication between structures within and without the skull.

Now, in the moulding of the head which takes place at birth, these vessels are liable to injury, especially if this moulding is irregular or excessive. He claims that all hemorrhages in connection with the parietal bones are due to injuries of the above mentioned vessels.

Association of Chorea with Tenia Solium. (James Burnet, Edin.; *Brit. Journal of Children's Diseases*, April, 1904.)

It is not unusual to find chorea associated with thread and round wounds, but the author says that in every instance there has been a definate rheumatic history. Two cases are related.

1. Girl 17 years old. Movements very violent. At times had thrown herself on the floor. Pulse 128. Respiration 32. Heart dilated, but no murmur. Bromide and digitalis with sod. salicyl. were given for a week without result. Tape-worm having been suggested, a capsule of ext. filicis mas was given. Result, the expulsion of a large tape-worm without the head. From that time improvement began and in three weeks the choreic movements had practical ceased. A second dose of filix mas brought away the head with a large number of segments. Complete recovery followed.

The second case was more striking than the first. Aspirin and arsenic had been given for three weeks, with the patient steadily becoming worse. A dose of filix mas was given. A large tape-worm with its head came away. Almost immediately the choreic movements ceased, but it was a fortnight before the heart became normal.

Relation of the Status Lymphaticus to Sudden Death, Death Under Anesthesia, and Infection. (*Johns Hopkins Bulletin*, Oct., 1903, Geo. Blumer.)

The views set forth are based on the personal study of nine cases of sudden death in infancy and childhood and upon the study of the literature. As to whether it is possible to make a diagnosis of the status lymphaticus before the onset of the attack, which is the immediate cause of death, the author mentions Escherich as stating that such patients usually have a pale thin skin, a pasty complexion and a good pad of subcutaneous fat; frequently signs of rachitis or scrofula are present. The superficial lymph nodes, especially those of the neck and axilla, are enlarged; there are hypertrophy of the tonsils and of the pharyngeal adenoids and the spleen is often palpable. A percussible thymus may develop later, and Ewing's work suggests that an increase in the lymphocytes is probably present. Of the clinical symptoms preceding the attack little is known, though the immediate causes of death are probably only two, cardiac paralysis and asphyxia.

Many of the infants found dead in bed, and of those supposed to have been overlain, belong to this class of cases. Most of these cases dying with symptoms of respiratory difficulty may be classed under the head of thymic asthma: percussion usually reveals the enlarged thymus gland. When the attacks of thymic asthma are not so severe operation has been done, the enlarged thymus removed and the symptoms relieved.

In regard to sudden death under anesthesia in such cases, almost all observers agree that there is cardiac failure; at first it was thought that chloroform was especially dangerous, but lately it has been shown that ether is equally so. Patients with adenoids and those with goitre seem especially liable to death under anesthesia if the status lymphaticus is also present.

In regard to infections and their course, in such cases, Dant found in a series of cases from Escherich's clinic, over one quarter of the patients dying from diphtheria presented the picture of the status lymphaticus.

The pathology of the condition is broadly a hyperplasia of the thymus and of other lymphatic tissues over the body. Other lesions are hypoplasia of the vascular system and in some compression of the trachea; there may be a lymphoid condition of the bone marrow and occasionally an enlarged thyroid gland. Microscopically the lesions are generally hyperplastic, along with slight degenerative changes in the proliferated cells composing the germinal centres. Bacteria do not seem to play any part in the causation of the condition.

The author concludes:

1. Status lymphaticus is a definate pathological entity.

2. It is probably associated with, if not due to, a condition of intermittent lympho-toxemia.

3. It may be associated with sudden death, probably as a result of lympho-toxemia alone in some cases, or as a result of the action of toxic, physical or psychical injuries, which are rendered much more powerful than usual by the predisposing action of the lympho-toxemia.

4. In some cases, the sudden death is due to asphyxia from pressure of the enlarged thymus in the trachea.

5. Subjects of the status lymphaticus can be recognized clinically in some instances. W. J. G.

Editorials.

MEDICAL ETHICS IN FRANCE.

The leading practitioners of France have recently adopted a new code of medical ethics. In regard to professional fees liberty is accorded to doctors and patients to arrange between themselves whatever terms they please, but practitioners enjoying exceptional repute are authorized to charge higher prices than humble beginners. It is also understood that fees should be more substantial for wealthy patients, thereby supplying compensations for poor patients, who are often attended gratuitously. The New York *Tribune* tells us that hereafter wealthy Americans visiting Paris and requiring medical attendance will probably find their doctor's bills sometimes higher than in former years; while, on the other hand, poor American students in the Latin Quarter will only be expected to pay their doctors small fees, in some cases not higher than $1 for several visits. The average price of medical visits in Paris is five francs, but for urgent visits the fee is double.

Physicians are now entitled to resort to the Law Courts to obtain payment for fees, but not until the amounts of their bills have been verified by arbitration by a committee composed of physicians. The custom of dividing fees between attending physicians and surgeons is forbidden. In no case can a physician draw upon a patient for payment through a banker. No physician can take pecuniary interest in any commercial or industrial enterprise having for its object the manufacture, preparation, or sale of patent medicines, or the exploitation of mineral waters. The dividing of fees between physicians and druggists, between physicians and midwives, or between a physician and directors of therapeutic institutions is absolutely prohibited. Any physician found guilty of entering into pecuniary participation in the profits of hotels, water or air resorts, etc., will be forthwith dropped from the rolls of the profession. No member of the profession is permitted to publish articles in the newspapers with the view of inviting publicity of any pharmaceutical preparation or

special method of treatment. Professional advertising of every description is forbidden. All members of the faculty are warned against making professional visits when it is not absolutely necessary to do so.

QUEEN'S MEDICAL FACULTY.

We learn from the Convocation address of the Dean of the Medical Faculty of University that that institution is in a flourishing condition. The attendance during the last season was the largest in the College's experience, the total registration being 216. There were in attendance thirty-seven Art graduates, and also a fair number of students who are attending the combined Arts and Medical course of six years. Of non-matriculate students there are seventeen on the list. In the past there has been no fixed rule as to when matriculation must be completed. It has now been decided, however, that each student must matriculate within one year after entering upon the study of medicine. Consequently hereafter, all second year students must be full matriculates. The division into junior and senior classes is now completed, excepting in clinics, and in these a beginning has been made. The Department of Anatomy will be strengthened by the appointment of a man who will devote all his time to the teaching of human and comparative anatomy. For the teaching of Pharmacology a building is now being fitted up, and its equipment will be completed as soon as possible. The record of this fine old institution has been in all respects good, and her many friends will rejoice at her present prosperity.

TRINITY UNIVERSITY.

The last Spring Convocation of the University of Trinity College was held on Saturday afternoon, May 28th, in the Convocation Hall. Dr. Temple, in his address to the graduates, took occasion to say that the results of federation with the University of Toronto had thus far been highly satisfactory.

He congratulated the Trinity graduates in Medicine on the excellent showing they had made at the examinations, and added that he never examined a better lot of papers. It was at one time feared that there would be friction between the students of Trinity and Toronto University after the amalgamation, but he was happy to say that, on the contrary, the students of both classes joined together as one, and their conduct had been in all respects admirable.

ONTARIO MEDICAL ASSOCIATION.

The recent meeting of the Ontario Medical Association was in many respects above the average, although the attendance was not so large as its officers expected.

The meeting was held in the new Medical Building of the University of Toronto. The building is admirably adapted for such a purpose, and we understand that the majority of members and exhibitors were well satisfied.

Many admirable papers were read, and listened to with deep interest. The discussions on the same were not very good—in many cases the papers were practically not discussed at all. It is difficult to assign a good reason for this defect, but we are inclined to think that there were too many papers for the time. The President, Dr. Jas. F. W. Ross, who made an admirable chairman, did not discourage discussions in any case; in fact, he encouraged them, but there appeared to be a pretty general feeling that the meeting was always *behind time*, and that consequently discussions should be curtailed.

The Committee on Papers and Business worked well, and furnished an excellent programme. The President did much to assist this committee, especially after his return from the Soudan.

The Committee of Arrangements also did excellent work. The Smoker and the Luncheon were both well managed. The general credit for this is due to Dr. Allen Baines, who did the lion's share of the work, and he happens to know how to work.

There was a general feeling of satisfaction at the promotion of the first vice-president, Dr. Burt, of Paris, to the presidency. We know of no man in Ontario who more thoroughly deserves

this honor. It should be remembered, however, that last year the nominating committee nominated Dr. Ingersoll Olmsted, of Hamilton, for the presidency. He preferred, however, not to become president then because of his intention to spend a portion of the year in Germany, but even Dr. Olmsted and his friends were well satisfied with the choice of this year. We desire, however, in this connection to express the hope that Dr. Olmsted's turn will come in the near future.

The place of meeting next year is Toronto. Many of the members preferred some other city—London being the choice of many. Many of us in Toronto learned at the meeting of the Canadian Medical Association last year that the profession of London well know how to conduct a successful medical meeting. A full report of the proceedings of the meeting will appear in the August number.

CANADIAN MEDICAL ASSOCIATION

We learn from the President, Dr. Tunstall, and the General Secretary, Dr. Elliott, that good progress is being made in the preparations for the 37th Annual Meeting of the Canadian Medical Association, August 23, 24, 25 and 26. This is the first occasion of a meeting so far west. One meeting was held in Banff in 1889, and another was held in Winnipeg in 1901.

We understand from the local committee that a banquet will be held in Vancouver on the evening of the second day. The Members and their friends will take the steamer Princess Victoria for Victoria, on the third day. A run will be made to the William Head quarantine station and the return to Victoria will be made by way of Esquimalt, to give the members an opportunity of inspecting the fortifications. Upon arriving in Victoria the members will be formally received at the Legislative Building. Numerous trips are arranged for the fourth day to points of interest about the City. A large number of physicians in Ontario have decided to attend, and many of such have sent in their names to the General Secretary. Others who decide to attend are requested to send in their names without delay.

NOTES.

Mr. John Lyman, of the firm of Northrup & Lyman, who at one time lived in Toronto, died recently at Syracuse, N.Y., where he had been residing for about twenty years. Mr. Lyman in framing his will showed a very generous disposition towards Toronto. We find that he has bequeathed to charitable institutions in this city over $88,000, while he bequeathed to similar institutions in Syracuse $70,000. Among the bequests to Toronto were: $25,000 to Grace Hospital, $10,000 to Hospital for Sick Children, $10,000 to Home for Incurables.

We have heard much lately as to the efficiency, or lack of efficiency, in the professorate of the University of Toronto. We notice that an important resolution was passed at the University of Toronto Senate, May 8th, moved by Vice-Chancellor Moss, as follows: "That the President of the University be requested to inquire into the conduct, teaching and efficiency of every professor and instructor in the University, and as to the general condition and progress of the University, and report thereon with all convenient speed, and that the Principal of University College be requested to make a like inquiry and report with respect to University College."

The University of Toronto *Monthly* has, through Mr. S. J. McLean, Associate Professor of Economics in Stanford University, California, obtained the following list of names and addresses of medical graduates of Toronto University now living in California: Dr. D. A. Brailie (Trin. '92), Santa Clara; E. J. Boyes, M.D., C.M. (Trin. '90), Central Bank Building, Oakland; E. B. Boyes, M.D., C.M. (Trin. '96), Central Bank Building, Oakland; W. E. Ledyard, B.A., '67, M.B. '70, Central Ave. and Walnut Street, Alameda; F. H. Moss, M.B. '92, Palo Alto; J. B. MacCallum, B.A. '96 (M.D.), Assistant in Physiology University of California, Berkely; C. L. McCracken, M.B. '81, Pescadero; Geo. McKenzie, M.B. '91, Concord; R. E. McKibbon, M.B. '97, Loleta; J. C. Stinson, M.D., C.M. (Trin. '93), 533 Shuter Street, San Francisco.

RESULTS OF THE FINAL AND INTERMEDIATE EXAMINATIONS.

The following candidates passed the final examination of the College of Physicians and Surgeons of Ontario, June, 1904:

S. F. Abbott, London; J. R. Armstrong, London; J. L. Biggar, Toronto; F. M. Bell, Kingston; A. T. Bond, Ryckman's Corners; R. S. Brewster, Beeton; N. Blanchard, Sunderland; W. F. Babb, Carlingford; F. W. Blakeman, Stratford; M. E. Branscombe, Picton; H. G. F. Blair, Ashton; R. K. Cullen, Toronto; W. J. Chambers, Lochalsh; G. F. Chapman, London; L. V. Croft, Middleville; J. H. Cryan, Demorestville; J. S. Dickey, North Williamsburg; C. E. Duggan, Oil Springs; F. DeHaitre, Rockland; F. J. Dodd, Ottawa; R O. Fisher, Ashgrove; E. V. Frederick, Campbellford; A. J. Fraleigh, Bloomfield; E J. Foster, Kagawong; W. T. Gemmell, Seaforth; G. E. Greenway, Little Britain; W. A. Graham, Toronto; W. E. Gallie, Barrie; C. Gilmour, Toronto; C. H. Hair, Lavender; R. B. Harris, Prince Albert; J. C. Hunt, London; W. B. Hunt, London; K. H. Holmes, Chatham; W. B. Hendry, Toronto; F. W. Hill, Ottawa; D. H. Houston, Belleville; E. L. Hodgson, Toronto; H. C. Jamieson, Guelph; W. J. Kerfoot, Minesing; C. E. Kinsler, Ruscom; J. H. Kidd, Warsaw; M. H. Lang, Langford; J. D. Leeson, Toronto; Isabella Little, Toronto; H. Moore, Athens; C. F. Magee, North Gower; W. N. Meldrum, Ayr; G. E. Marshall, Toronto; J. H. Munro, Maxville; P. J. Mugan, Toronto; D. C. Murray, Newton; D. Munro, Blytheswood; H. C. McLean, St. Thomas; J. M. McCulloch, Durham; E. A. McCulloch, Thomasburg; J. A. McIntosh, Vankleek Hill; R. McLaughlin, Cumberland; W. W. McKinley, Sealey's Bay; G. W. McIntosh, Mississippi Station; D. M. McCarthy, Kingston; J. McLellan, Toronto; G. W. R. McCartney, Carlisle; T. H. McColl, Wallacetown; Hector McLean, Glencoe; A. McInnes, Bognor; B. R. O'Reilly, Toronto; J. A. Oille, Sparta; A. D. Proctor, Ottawa; J. Phillips, Hewett; M. J. Perkins, Toronto; P. F. Quinlan, Stratford; F. A. Ross, Guthrie; G. A, Richardson, Stouffville; V. Ross, Guthrie; E. J. Robinson. North Williamsburg; Victoria Reed, Kingston; J. W. Rowntree, Thistletown; A. A. Staley, Wolfe Island; S. Singer, Toronto; W. H. Secord, Brantford; A. H. Singleton, Newboro'; George E. Smith, Toronto; E. A. Taggart, Ottawa; G. H. Ward, Napanee; A. Willson, Russell; W. T. Williams, St. Thomas; W. A. Woolner, Toronto; G. F. Wilson, Toronto; B. C. Weir, Strathroy; E. J. F. Williams, Brockville; J. M. Young, Renfrew.

INTERMEDIATE.

N. G. Allin, Bowmanville; R. W. Anderson, Toronto; W. G. Anderson, Thorndale: A. H. Adams, Whitby: W. J. Barber, Toronto: F. W. Blakeman, Stratford; M. E. Branscombe, Picton: A. V. Brown, Neustadt: F. J. Brodie, Forest: N. Blanchard, Sunderland; J. W. Brien, Lindsay; J. A. Brown, Colborne; H. R. H. Bryan, Cairngorm: J. H. Bennett, Sarnia: H. G. F. Blair, Ashton: J. H. Berwick, Gorrie: L. V. Croft, Middleville: J. H. Cryan, Demorestville: W. K. Clarke, Schomberg: A. H. W. Caulfield, Toronto: W. H. Carveth, Toronto: C. W. Clark, Picton; W. J. Chapman, Holland Landing: J. C. Caskey, Tweed; G. W. Crosby, Campbellford: J. A. Duncan, Elora: E. DeHaitre, Rockland: T. Alex. Davies, Toronto; G. A. Durnin, Dungannon; F. J. Dodd, Ottawa; R. H. Ells, Ottawa; G. E. Eakins, Toronto: A. J. Fraleigh, Bloomfield: B. J. Ferguson, Teeswater; E. J. Foster, Kagawong; J. Ferguson, Hamilton; J. V. Gallivan, Kingston: John Graham, Belwood, A. L. Hore, Valentia; F. N. Hughes, Fennells: W. H. Harvey, Toronto; W. B. Hendry, Toronto: F. W. Hill, Ottawa; D. H. Houston, Belleville; E. L. Hodgson, Toronto: A. C. C. Johnston, Toronto: N. D. Kyle, Belwood: A. Kinghorn, Toronto: J. F. L. Killoran, Seaforth: H. E. Knoke, Mitchell; J. A. Kane, Orillia; J. H. Kidd, Warsaw: Isabella Little, Toronto: D. C. Murray, Newton; A. F. Malloy, Nobleton; G. N. Marshall, Toronto; J. H. Munro, Maxville; C. F. Magee, North Gower: H. Moore, Athens; P. J. Mugan, Toronto; A. J. Manard, Belle River; D. Munro, Blytheswood: H. C. McLean, St. Thomas; J. A. McIntosh, Vankleek Hill; C. C. McCullough, Gananoque; A. H. McFadden, Mill Brook: W. A. McQuade, Warsaw: P. McGibbon, Forest; W. E. McLellan, Almonte: R. A. McLurg, Sault Ste. Marie: R. McCaffrey, Madoc; R. J. P. McCulloch, Thomasburg; E. A. McCulloch, Thomasburg; W. E. McLaughlin, Cadmus: J. K. McGregor, Waterdown: A. G. McMillan, London: J. M. McCulloch, Durham: A. D. Proctor, Ottawa; M. J. Perkins, Toronto; R. J. Robinson, North Williamsburg: Victoria Reed, Kingston: William Reid, Waterford; F. J. Rundle, Port Perry: J. W. Rowantree, Thistletown; J. B. Stallwood, Hagersville; W. E. Somers, Waterford: A. E. Schultz, Elmira; A. B. Sutton, Cooksville; F. J. Sheahan, Newark: A. A. J. Simpson, White Church: A. H. Singleton, Newboro': L. G. Stewart, Toronto; George F. Smith, Toronto; E. G. Spence, London: N. F. Sutton, Madoc: E. A. Taggart, Ottawa; W. F. Thorn, Picton; A. Turner, London; A. S. Unsworth, Hamilton; F. S. Vrooman, Lindsay: B. C. Weir, Strathroy; B. C. H. Whyte, Mill Brook: F. A. Watterson, Manotick; E. J. F. Williams, Brockville; S. B. Walker, Niagara Falls; J. M. Young, Renfrew.

GRADUATES OF TORONTO UNIVERSITY IN MEDICINE HOLD A REUNION

The class of 1894 in medicine of Toronto University held a reunion June 16th in celebration of their tenth anniversary. A banquet was held at the University dining hall. Out of a class of 65 members the large number of 25 gathered together to celebrate the event. Members of the class were present from Fredericton, N.B., Chicago, Warren, Pa., Detroit and from all parts of Ontario.

Dr. D. A. McClenahan, of Waterdown, president of the class, was in the chair, and seated on his right was Dr. James H. Richardson, for many years professor of anatomy at Toronto University, who was the only guest of the evening.

The toast of the King was proposed by the president.

The toast to Canada was proposed by Dr. F. W. Smith, of Aylmer, and replied to by Dr. Richardson in a speech full of reminiscences.

Dr. G. M. Ferris, of Cobourg, proposed Toronto University and Prof. McIlwraith, a member of the class, responded.

Dr. Brain, of Crysler, proposed the ladies and the toast was responded to by Dr. W. A. Ball and Dr. Becket, of Thamesville.

The "Absent Members" of the class were honored and a large number of letters were read from members of the class expressing regret at not being present.

It was decided to hold another reunion in five years.

The officers of the class were elected as follows: Hon. President, Dr. James H. Richardson; President, Dr. E. B. Fisher, Fredericton, N.B.; Vice-President, Dr. G. M. Ferris, Cobourg; Secretary, Dr. W. J. McCollum, Toronto

The following were present: W. H. Alexander, Toronto; W. Arrell, Cayuga; W. A. Ball, Toronto; A. W. Aikins, Chicago; W. E. Brain, Crysler; J. D. Curtis, St. Thomas; W. B. Boyd, Coldwater; E. B. Fisher, Fredericton, N.B.; G. M. Ferris, Cobourg; J. W. Ford, Thorndale; J. Becket, Thamesville; E. D. Graham, Queensville; K. C. McIlwrath, Toronto; D. H. McClenahan, Waterdown; F. W. Smith, Aylmer; W. A. Hackett, Detroit; J. R. Durham, Warren, Pa.; J. A. White, Lindsay; J. R. Mencke, Bridgeburg; J. A. Lawson, Brampton; W. Laidlaw, Edgar; H. H. Sinclair, Walkerton; J. Stenhouse, Toronto; W. J. McCollum, Toronto.

UNIVERSITY OF TORONTO.

The events of Commencement week of the University of Toronto were unusually interesting. They included luncheon parties, concerts, dances, at-homes, open-air plays, lacrosse, tennis and cricket matches, garden parties, excursions, etc.

The annual meeting of the Alumni Association was held in the Chemical Laboratory on Thursday afternoon, June 9th. Dr. Reeve, President of the Association, presided, and presented the annual report of the Executive Committee. The report noted that there were now twenty-three branches in Ontario, one in Quebec, one in Manitoba, three in British Columbia, and two in the United States, making a total of forty-three organizations. Reference is made to the fact that the information bureau of the association, which endeavors to keep informed of possible openings for Alumni in commercial, industrial and professional phases of activity, had been able during the year to assist a considerable number of graduates and undergraduates to positions of emolument.

The Convocation Hall Fund, subscriptions to date totalled $51,787, and the structure would be commenced forthwith. The *University of Toronto Monthly* at the end of the year showed a profit balance of $219. The Treasurer of the Association reported a surplus on May 31st ult. of $272.

Election of Officers.

The report was adopted, as was also the report of the Nominating Committee recommending the following officers for the ensuing year:—

Hon. President, Jas. Loudon, LL.D.; President, R. A. Reeve, M.D., LL.D; 1st Vice-President, I. H. Cameron, M.D., F.R.C.S. Vice-Presidents—J. E. Glashan, LL.B., Ottawa; Rev. James Allan, M.A., Sault Ste. Marie; Rev. Neil MacNish, LL.D., Cornwall; Sheriff William Watt, LL.B., Brantford; William Gunn, M.D., Clinton; Rev. J. E. Tolmie, B.A., Windsor; Secretary-Treasurer, J. C. McLennan, Ph.D. Executive Committee—A. R. Bain, Miss E. Balmer, Miss M. E. T. Addison, Dr. W. L. T. Addison, A. F. Aylesworth, G. A. Bingham, J. S. Carstairs, Harold Clark, H. J. Crawford, W. H. Ellis, Rev. G. R. Faskin, Dr. J. T. Fotheringham, N. W. Hoyles, C. C. Jones, M. H. Ludwig, Rev. E. Bruce Macdonald, Dr. McPhedran, Rev. John Neil, Dr. W. Packenham, Wm. Prendergast, Thos. Langton, Professor Squair, J. R. L. Starr, F. H. Torrington, R. S. Waldie, Geo. Wilkie, W. T. White, Prof. J. McGregor Young and R. J. Younge.

On the same evening the Chancellor, Sir Wm. Meredith, delivered an address. He gave a comprehensive *résumé* of the

progress, the present statis, and the needs of the University. While noting the splendid progress that had been made in all departments during recent years, Sir William expressed the opinion that inadequate support was given the University in view of the imperative needs for larger equipment and broadening curricula. He also announced that Mrs. Massey-Treble intended to provide funds for the erection of a University Household Science Building, to be situated on University property between Victoria and Wycliffe Colleges. He further announced that the Dominion Government had accepted and approved of a site for a new Observatory, to be erected within two years, on University property situated on the south-west corner of Bloor Street and Devonshire Place.

Speaking of the Medical Faculty, he declared a more self-denying and loyal faculty could not be found in any University. The total enrolment of students had increased from 490 last year to 724 this year, including the Trinity students, and 90 occasional Dental students. The Faculty comprised 90 members, and the amalgamation of the Toronto and Trinity Faculties had been happily accomplished without friction. He noted that the summer post-graduate course, begun June 1st, was proving a great success, over 25 practitioners in the province having enrolled in the course. Reference was also made to the establishing of a new course in Public Health, which would prove of very considerable advantage to the public.

As to the scheme for a woman's residence, Sir William declared that the plan was about to assume practical shape. Steps were now on foot to make a beginning in the way of establishing a temporary woman's residence for next year. He regretted that there was no immediate prospect of a men's residence. Little could be expected from the Government in this connection. However, now that Convocation Hall was assured, probably the Alumni could undertake with equal success the scheme for a residence for the men students.

Convocation Hall.

The corner stone of the University Convocation Hall was laid by the Lieut.-Governor at twelve o'clock, Friday, June 10th. Dr. Reeve rejoiced that the faith of the Alumni and friends of the University was about to be rewarded. He then read the following letter from Dr. Goldwin Smith :

The Grange, Toronto, June 9th, 1904.

To R. A. Reeve, M.D., President of the Alumni Association, University of Toronto.

Dear Dr. Reeve,—I am sorry to find that I have to plead physical weakness as my excuse for inability to take part, as I

had hoped to do, in the laying of the foundation stone of our new Convocation Hall to-morrow.

It is needless to say how hearty an interest I feel in anything that marks the success, progress and unity of our University. We are now on the right track: that of combining in one great provincial university the resources, once scattered over a number of local and denominational institutions. Correspondents of the papers are calling upon the university for the highest class of lecturing power. First-rate lecturing power is a commodity for which, as for other first-rate commodities, we must pay a first-rate price, and this we can do only by a combination of our resources. For my part I do not covet an unlimited increase in the number of students. The more intellectual callings may become overstocked, and you may then have ambition and sensibility without bread. At the same time the list of university studies has been made practical, perhaps to the full extent possible, without compromising the special function of a university as a place of the higher knowledge and training. For exceptional ability lowly-born a way to rise should, in the interest of society, always be made. All honest callings are equally respectable, and when pursued with industry and cheered by domestic affection may be equally happy. In a world vexed with political strife and wars or rumors of wars you are laying the foundation stone of a hall of peaceful progress. In a world much given over to the pursuit of gain you are paying homage to the culture which belongs to the higher nature of man. Where you now gather, generation after generation of professors and students will gather as the ages go on. In time, probably, with the progress of science and of society, they will differ from our generation as widely as our generation does from the professors and students of the middle ages. But the foundation stone laid to-day will remain unmoved, and so we hope and believe will the usefulness and honor of the University of Toronto.

Yours very truly,

(Signed) GOLDWIN SMITH.

His Honor tapped the block of granite three times, and said "I declare this stone to be well and truly laid." They had heard, he said, something of the difficulties that had been encountered. When they saw this building completed, he had no doubt the Government would see its way clear to render still further assistance to the University. It was quite erroneous to think that the demands of the University would ever be satisfied, the greater its classes the more it would require for its maintenance.

Hon. Mr. Harcourt, the Minister of Education, said that he

was delighted to be there as a graduate, the building was largely to be placed to the credit of the graduates. The potentialities of the University rested not in its buildings, nor in governments, but in the graduates themselves. He was glad to learn that the undergraduates had contributed thousands of dollars, and the Lieutenant-Governor had a half interest in the building. He might say that it was strictly a limited partnership. The Government's liability was not to be more than $50,000. That was to be understood. He thought that they should make their appeal now to the Alumni who had not yet contributed.

The annual Convocation was held in the Gymnasium on the the same afternoon. After the close of the Convocation a large garden party was held on the University Campus. At the Alumni dinner, held on the same evening, many interesting speeches were delivered, from them we cull the following abstracts:

The Lieutenant-Governor.

His Honor the Lieutenant-Governor, in proposing the toast to *Alma Mater*, noted with satisfaction the growing public interest in the welfare and growth of the University. He believed that the future of the University must, in the main, be with the Alumni, whose efforts in behalf of their *Alma Mater* would go far towards strengthening the bonds of the Government. He emphasized the importance of the culture idea in university education as distinct from the mere bread-and-butter species of education. As Favorinus had said, there was nothing great in life but man, and nothing great in man but mind.

His Honor urged college men to devote themselves to research work in special subjects of the university curriculum. There were great difficulties, jealousies, and disappointments in the field of professional and commercial life, but in the pursuit of truth there was no disappointment to the earnest seeker. Learning was its own reward.

President Harper.

Professor Harper, the newly-made alumnus of Toronto, in replying to the toast, was pleased to be able to call himself one of the Alumni gathered there. He brought the greetings of Toronto men at the University of Chicago. A finer body of university men he did not know. The university spirit wherever found was united ever in the desire to do earnest and sincere work, to push forward the outer bounds of knowledge in all the great realms of truth. There could be no jealous rivalries in such a work. It was just such gatherings of university men that removed all jealousies and misconceptions.

Continuing, Dr. Harper referred to the ever pertinent university question—the question of money. During the last few years, he declared, 90 per cent. of the money which came to the University of Chicago had come unsolicited. Men of means could find no better way of getting rid of their surplus wealth than in helping out some university scheme. It was one of the encouraging signs of the age that men of wealth were coming to regard the university as so important a factor in the upbuilding of a nation. But men, loyal, true, and self-sacrificing, were needed as well as money. The cause of science in these days witnessed sacrifices as great in its behalf as did any mission movement. And such self-sacrificing men were to be found on Toronto's faculty. The obligations of university men were wide, reaching out into nearly every sphere of life, private as well as public.

But the great thing that had come to university life in the past quarter century was the spirit of research. It was admitted more and more that the primary object of the university was to investigate rather than to teach. And in this connection Toronto was abreast of the times. The names of Toronto professors were known the world over in connection with original work in their departments. They must be given increased facilities for such work. Only thus would the university keep abreast of the times.

As one of the Alumni of Toronto, he pledged himself to work for the university along the lines of research and investigation.

University and Government.

Hon. Richard Harcourt, following Dr. Harper in reply to the same toast, declared that for long years there had been in the Legislature of the Province no difference of opinion as to what the attitude of the province, as a whole, should be towards the university. Public sentiment, he believed, demanded that the province adequately support the Provincial University. But the Government of the day had to consider not only the needs of the university, but also the interests of the secondary and primary schools. Last year the province gave one dollar out of every four to the cause of education. He excused the lack of further assistance at present to the university on the ground that the provincial revenue would not stand it. Toronto, like every other university, must be expected to lament that its growing needs could not be met. Its position was not unique. But he believed the Government was doing its best to meet generously all reasonable demands. I ask you only to wait but a comparatively short time, and you will get all you ask.

The Government, he added, intended to proceed not hastily, but only after due deliberation. They would at the earliest

possible moment meet the just demands made in the interest of the university, and, therefore, in the interest of the whole public.

Judge Chisholm, of Berlin, also responded to the toast. A few years ago, he said, the University of Toronto dwelt in a state of splendid isolation. It was not a common child of the people of the province. Now this feeling had changed, thanks largely to the efforts of the Alumni Association.

Professor Wm. Clarke paid a sincere tribute to the work of Provost Macklem in furthering and carrying through the federation movement, and declared his own willingness to further the interests of the united universities with all his power.

Canadian to the Fore.

Professor Newcomb declared that he was proud to claim Canada as his native land. It was a common thing in the States to find on inquiry that many of the very highest men in America were Canadians, and in many cases graduates of the University of Toronto. He laid down as a thorough test of a man's fitness the ascertaining as to whether or not he had the capacity to acquire "useless knowledge." The men who succeeded, he declared, were the men who had that faculty. The university's object should be to train men to think and observe, and to make the best use of their time.

Dr. Minot drew some lessons from the experience of America's oldest university, Harvard. The university, he believed, should train its students to exercise the faculties of eye and ear in appreciating the beauties of nature and sweet sound and to understand their fellow man. The university must leave with its graduates the desire for the joy of services. He noted the great achievements of Toronto University in the past. But what had been done was but promises of what was still to come. He aptly expressed, in conclusion, the hope that the Minister of Education "would never smother the Desdemona of University Building under the pillow of financial expediency."

Dr. McDougall, an alumnus of forty-five years standing, spoke briefly, urging that people with money to give should be strongly encouraged to come to the assistance of the University.

Chancellor Burwash referred to the fact that this was the sixtieth class in Arts to graduate from Toronto University. They might well draw inspiration from the proud record of the past, and boast themselves to be even better than their fathers, though the Alumni of the past had numbered many strong and notable men. He declared that the University must grow strong from its own inner strength. The Alumni could do, in the end, more than the Government.

Personals.

Dr. K. C. McIlwraith, of Toronto, has removed from Carlton Street to 54 Avenue Road.

Dr. C. T. Noecker, of Waterloo, spent a month in New York, working chiefly on the Eye and Ear.

Dr. John McCrae (Tor. '98) has resigned his position as Resident Pathologist to the Montreal General Hospital.

Dr. John J. Gunn, son of Dr. John Gunn of Ailsa Craig, has been appointed to the staff of the Asylum for Insane, London.

Dr. Herbert Bruce, of Toronto, will sail from New York for England, July 15th. He will attend the meeting of the British Medical Association.

Drs. Osler and Thos. McCrae, of Baltimore, and Dr. Hugh A. McCallum, of London, Ont., are going to attend the meeting of the British Medical Association.

Dr. Price-Brown will spend the summer months across the Atlantic. He sailed from Montreal on the 1st inst. and expects to return to the city early in September.

Dr. J. H. Bull (Tor. '94), Holland Centre, has been appointed Associate Coroner for the County of Grey, and Dr. N. J. Amyot (Tor. '95), of Belle River, has been appointed Associate Coroner for the County of Essex.

Dr. Gilbert Royce (Tor. '97), who has been practising in Ottawa since 1898, is paying a visit to Toronto, his old home. He goes to New York for post-graduate work early in July. He will make a specialty of the Eye and Ear and will return to Ottawa.

Dr. Robt. G. Brett (Vic. '74), is Vice-President of the Calgary Alumni Association. At the annual dinner held on the evening of April 1st, thirty members from Calgary and South Alberta were present. The speakers expressed pleasure at the entrance of Trinity University into confederation.

Dr. E. K. Cullen (Tor. '03) published in the *Johns Hopkins Bulletin* last December, "A Morphological Study of the blood of certain Fishes and Birds," with special reference to the leucocytes of birds, and including a note on the occurrence of filariæ in the blood of two birds and two porcupines.

Dr. Herbert D. Pease (Tor. '93) sometime Fellow in Pathology in the University of Johns Hopkins, Baltimore, and later an official Bacteriologist at Philadelphia and Buffalo, is at present Director of the Antitoxin Laboratory of the New York State Department of Health at Albany, N.Y.

Dr. Herbert E. Wallace, of Bolton, was married to Miss Bonnar, June 7th.

Dr. F. D. McGrattam, of Port Perry, was married to Miss Jenkins, June 29th.

Dr. Albert H. Cook, of Dover Plains, N.Y., was married to Miss Patterson, of Toronto, June 9th.

Dr. Lelia Davis has removed from 189 College Street to the Alexandra Apartments, University Avenue.

Dr. W. P. Caven sailed from Montreal for England June 16th. He will return to Canada about August 15th.

Dr. Hodgetts, Secretary of the Provincial Board of Health, attended the meeting of the Public Health Association of America held in Washington, June 7, 8, 9, 10.

Dr. Herbert Burnham, of Toronto, will leave for New York, July 5th, and will sail from that city for London, July 9th. He will return to Canada and resume practice September 1st.

Sir Frederick Treeves, the eminent English Surgeon, visited the United States early in June, after a tour through the West he reached Philadelphia June 15th and received the Honorary degree of LL.D., from the University of Pennsylvania.

Prof. Pozzi, the famous gynecologist of Paris, and Editor of "The Review de Gynaccologie," came to America to attend the Congress of French speaking Physicians, held in Montreal June 28th. He visited Toronto June 25th, and was entertained at dinner on that evening by the Dean and Faculty of Medicine of the University of Toronto.

The following were elected officers of the Ontario Medical Association for the ensuing year :—President, Dr. Wm. Burt, Paris; 1st Vice-Pres., Dr. J. L. Davison; 2nd Vice-Pres., Dr. Geo. Hodge, London; 3rd Vice-Pres., Dr. Ed. Ryan, Kingston; 4th Vice-Pres., Dr. T. H. Middleboro, Owen Sound; General Secretary, Dr. Chas. P. Lusk, Toronto; Ass. Secretary, Dr. Samuel Johnston, Toronto; Treasurer, Dr. Fred. T. Fenton.

The next meeting of the Pan-American Congress will be held in Panama, the latter part of December, 1904. This Congress meets every three years. It was organized by Dr. William Pepper, of Philadelphia; Dr. C. A. Reed, of Cincinnati; Dr. Albert Van der Veer, of Albany, N.Y.; and Dr. R. L. E. Johnson, of Washington. The following meetings have thus far been held—First, in Washington, 1893: second, in Mexico, 1896; third, in Cuba, 1901.

Obituary.

REGINALD HENWOOD, M.D.

Dr. Reginald Henwood died May 23rd, aged 76. He was born in England and came to Toronto while in his teens. He became a licentiate of the Medical Board of Upper Canada College in 1846, and shortly after went to Brantford, where, for half a century, he was the leading physician of the community. He was a very able physician, and at the same time an extremely lovable man.

CHARLES WALTER CHAFFEE, M.D., M.C., P. AND S.O.

Dr. C. W. Chaffee, of 614 Spadina Avenue, Toronto, died after a short illness from pneumonia, May 25th. He received his medical education in the Toronto School of Medicine, and after engaging in regular practice for a few years became connected with the I.O.F., and worked with that Order up to the time of his last illness.

VINCENT HOWARD MOORE, M.D., LL.D.

Dr. V. H. Moore, of Brockville, died unexpectedly at his home on June 8th, aged 56. He had been in poor health, due to chronic disease of the liver, for some time, but recently had sufficiently recovered to resume in part his practice. We are told that, without warning, he was suddenly stricken with heart failure and died at once. Dr. Moore graduated in Medicine at Queen's College, Kingston, in 1870, and practised continuously in Brockville from that time up to the time of his last illness. He was a very staunch advocate and warm champion of Queen's University, of which he was for years the representative in the Ontario Medical Council. He was made a Fellow of the Royal College of Physicians and Surgeons, in Kingston, in 1890, and was made LL.D. by Queen's University in 1903. He was one of the most influential members of the Ontario Medical Council and one of its past presidents. Apart from his large surgical practice, he was one of the most progressive citizens of Prescott, and was prominent in all municipal affairs. He was also for many years surgeon for the 41st Battalion. He was a staunch Conservative and took an active part in elections, being one of the best political speakers in the riding. He possessed rare social qualities, and was deeply beloved by his many friends.

Book Reviews.

AMERICAN EDITION OF NOTHNAGEL'S PRACTICE.

Tuberculosis and Acute General Miliary Tuberculosis. By Dr. G. Cornet, of Berlin. Edited, with additions, by Walter B. James, M.D., Professor of the Practice of Medicine in the College of Physicians and Surgeons (Columbia University), New York. Handsome octavo volume of 806 pages. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto. Cloth, $5.00 net; Half Morocco, $6.00 net.

This is the seventh volume to be issued in Saunders' American edition of "Nothnagel's Practice," and the remaining four volumes are in active preparation for early publication.

The American edition of Professor Cornet's exhaustive work appears at a time when the subject of tuberculosis has a peculiar claim upon the attention of mankind. Within a few years both professional and general public interest in the disease has taken enormous strides In almost every civilized community societies for the prevention of tuberculosis are being organized, and these are composed not only of physicians but of laymen, while governments themselves are taking an active part in the movement. Under these circumstances, and at this time, the work is of interest to practitioners, for there is no other treatise which gives an equally clear and comprehensive view of this subject.

The article on Acute General Miliary Tuberculosis has been admirably written, and gives a thoroughly clear understanding of this disease.

The importance of the Chemistry of the Tubercle Bacillus and its bearing upon immunity have warranted a thorough treatment of this subject.

The work is complete and logically arranged, and the editor has made additions where necessary to bring it down to date.

Manual of Materia Medica and Pharmacy. Specially designed for the use of practitioners and medical, pharmaceutical, dental, and veterinary students. By E. Stanton Muir, Ph.G., V.M.D., Instructor in Comparative Materia Medica and Pharmacy in the University of Pennsylvania. Third edition, revised and enlarged. Crown octavo, 192 pages, interleaved throughout. Bound in extra cloth, $2.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

The object of this work is to give a concise statement of the important facts of the medicines most likely to be used by a student when he becomes a practitioner. A third edition shows that the book is deservedly popular among the readers for whom it was intended.

Selections.

Treatment of Bronchopneumonia.

How to care for a baby with bronchopneumonia is summarized by Northrup in the following:

1. Castor oil to clear the field of operation. It is the first aid to the injured.

2. Fresh air, cool and flowing. It reddens the blood, stimulates the heart, improves digestion, quiets restlessness, aids against toxemia. Regulate the temperature of air of the room inversely to that of the child. The patient's feet must always be warm, and the head cool.

3. Water, plenty, inside and outside. Temperature of the water as indicated by child's temperature.

4. Quiet and rest. Tranquillizing influences about patient. Undisturbed sleep.

5. Correct feedings to avoid fermentation and gas in abdomen. If there is need, high hot salines.

6. Antipyretics. Water. No coal tar products.

7. Heart stimulants. Fresh air, hot foot baths. Relieving tympanites and crowding. Hot foot-baths and hot salines can be given in a cold room. Both can be given under the bedclothes.

Drugs.—Whiskey and strychnine. These are the first drugs mentioned in this paper, unless that household remedy, castor oil, be included. Promote general comfort in every rational way.

How to kill a Baby with Pneumonia.—Crib in far corner of room with canopy over it. Steam kettle; gas stove (leaky tubing). Room at 80 F. Many gas jets burning. Friends in the room, also the pug dog. Chest tightly developed in waistcoat poultice. If child's temperature is 105 F. make a poultice thick, hot and tight. Blanket the windows, shut the doors. If these do not do it, give coal-tar antipyretics and wait.—*Med. News and Jour. Am. Med. Asso.*

Serum Treatment of Puerperal Fever.

Peham relates that the experience at Chrobak's clinic with Marmorek's serum were not favorable, but that Paltauf's antistreptococcus serum has shown an unmistakably beneficial action. It is derived from horses inoculated directly with fresh streptococcus cultures from puerperal processes and other severe streptococcus infections in man, with no passage through animals. Twenty-six cases of puerperal infection were injected with the Paltauf serum and all those patients with pure strepto-

coccus infection rapidly recovered, including one case of puerperal peritonitis. In the cases in which no benefit was apparent bacteriologic investigation showed that the infection was due solely to the colon bacillus or pneumonia germ.—*Wiener Wochenschrift, in Jour. Amer. Med. Asso.*

THE DOCTOR IN POETRY.

AIR, "SOLDIER AN' SAILOR, TOO."

(With apologies to Mr. Rudyard Kipling)

As I was agoing 'ome to bed, through a muddy country lane,
I seen a man in a oilskin cape, atrudgin' through the rain.
'E 'adn't a match, an' 's pipe was out, as' I ses to 'im, "'Oo are you?"
An' 'e ses, "I'm a doctor, the country doctor, surgeon an' midwife too!"
Now 'e never gets paid for 'arf 'e does, an' 'e does the work of two,
An' 'e isn't one of the gentlefolks, 'an 'e ain't like me nor you,
E's a sort of a bloomin' chameleotype, surgeon an midwife too.

An' I seen 'im again all over the shop, aplayin' all sorts of rags,
Like settin' a fractured collar-bone with a couple of touch-line flags.
An' the parsons owe 'im money, for their wives give 'im work to do.
Though 'e's only the doctor, the country doctor, surgeon an' midwife too.
An' the Poor Law Board they sits on 'im, an' tries to dock 's screw,
Though 'e 'as 's bread and cheese to git the same as me or you,
They think 'e's a 'aughty philantocrat, surgeon an' midwife too.

An' I seen 'im again with a knife an' things, and the sweat was on 'is brow,
'E was trying to mend the guts of a bloke as 'ad spiked 'isself in a row:
'Twas late at night an' 'e 'adn't no light, to see what 'e 'ad to do,
An' 'is pal was a doctor, a country doctor, surgeon an' midwife too.
'E 'adn't got far with 'is little job, 'e wasn't but 'alfway through,
When the bloke sits up an' asks for a drink, the same as it might be you:
Ho! they ain't no special anesthetutes, surgeon and midwife too.

But there wasn't a call to do as you done when you 'ad the gout in yer toe,
And you fetched 'im out in the dead of night, an' 'e 'ad six miles to go,
For you've 'ad it before, and you'll have it again, and you know just what to do.
You don't want the pore old country 'doc,' dispenser an' staff nurse too.
You pays 'im? What? Yes, tuppence a week, an' you're earnin' "thirty-two."
An' 'e 'as to subscribe to your football club, which you're too mean to do,
Because 'e's the doctor, the country doctor, surgeon an' midwife too.

Now I never believes in them specialist thieves, what stammer, an' grunt, an' blow,
As 'll watch yer die with a winkin' eye for a 'undred pound or so;
An' when it's "Checks?" an' "'Oose turn next?"—which I 'opes it won't be you!—
Let's stick to the doctor, the country doctor, surgeon an' midwife too.
An' when you come to the Bar of Gawd, an' 'E says "'Oo passed you through?"
(For 'e 'ates Peculiar People an' the Christian Science crew)
Just mention the doctor, the country doctor, surgeon and midwife too.—
E. G. B. A., in *St. Bartholomew's Hospital Journal.*

The Canadian Practitioner and Review.

VOL. XXIX. TORONTO, AUGUST, 1904. NO. 8.

Original Communications.

PRESIDENTIAL ADDRESS, TWENTY-FOURTH ANNUAL MEETING, ONTARIO MEDICAL ASSOCIATION.

By J. F. W. ROSS, M.D., C.M.,
Professor of Gynecology, Medical Faculty, University of Toronto.

GENTLEMEN,—There are pinnacles to which we reach, only to be hurled down from the dizzy height into the valley below to be hidden from the rude storms of the world, and where peace and quiet and easy-going hum-drum pervades the spot, while the green grass grows under the feet. This is the well-known valley of the "have beens." Hills have only two sides, one going up and the other going down, and when one has reached such honor as you have conferred upon me, he has climbed the up-side and must begin the descent. One is elated with the honor, but grieved with a retrospect of all that led up to it; one is pleased with the evidence of the good-will of his fellows—and a better lot of fellows never lived in any profession—but subdued with that soul-shading feeling that youth is fleeting and age is approaching. Each man naturally looks forwad to the day upon which he may occupy the presidential chair, but when the day comes he would give much to be able to postpone the honor for another ten years. And now it is time for the past presidents to move up and make room for me; but I do not intend to be placed upon the shelf, if health and strength remain. We all like to mingle with youth, but, unfortunately,

youth and age were never meant to mix, as Charles Kingsley has aptly put it:—

"When all the world is old, lad,
And all the trees are brown,
And all the sport is stale, lad,
And all the wheels run down,
Creep home and take your place there
The spent and maimed among,
God grant you find a face there
You loved when all was young."

It is a satisfaction, in dealing with the awful miseries of life, to know that others suffer, that suffering and death are the accompaniments of life, and from this springs much of the beautiful sympathy that is witnessed by our profession. We have a grand work to do. Charles Dickens has put it in the words of the doctor's wife where she says, "We are not rich in the bank, but we have always prospered and we have quite enough. I never walk with my husband but I hear the people bless him. I never go into a house of any degree but I hear his praises or see them in grateful eyes. I never lie down at night but I know that in the course of that day he has alleviated pain and soothed some fellow-creature in the time of need. I know that from the beds of those who were past recovery thanks have often gone up in the last hour for his patient ministration. Is not this to be rich?"

The young doctor must have as his main master faculty, sense, common sense, and he must have a real turn for the profession. A great divine has said: "The grace of God can do much, but it canna gie a man common sense." The danger of the present day is that the mind gets too much of too many things. A young medical student may have, as one author puts it, zeal, knowledge, ingenuity, attention, a good eye, a steady hand, he may be an accomplished anatomist histologist, analyst, and yet with all the lectures and all the books and other helps of his teachers he may be beaten in treating a withlow or a colic by the nurse in the wards, or by the Old Country doctor, who was present at his birth. The prime qualifications for a doctor have been given by Dr. Brown in the words, Capax, Perspicax, Sagax, Efficax. Capax, room, for the reception and proper arrangement of knowledge; Perspicax, a keen and accurate perception; Sagax, the power of judging ability to choose and reject; Efficax, the will to do, and a knowledge of the way to do it, the power to use the other three qualities.

The doctor must have a discerning spirit. There is a nick of time, or in other words a presence of mind, and this he must have on, as Dr. Chalmers has said, "Power and promptitude."

"Has he wecht, he has promptitude, has he power? He has power, has he promptitude, and, moreover, has he a discerning spirit?" The doctor must be as a general in the field or the pilot in the storm. I often think he belongs to no one in particular, but is a public property. His time is never his own. His children see little of him, and he leads a sort of Bohemian life, restless, active, thoughtful, worried, much beloved and occasionally cordially hated. He should be Bohemian in his tastes if he wishes for refinement to soften his manners and make him less of a wild beast. Art and literature, however, help to make noble only what is already noble, but such hobbies elevate and improve the mind and lift it above the rut of every-day life. A good education is a first essential. It is not necessary that everybody should know everything, but it is more to the purpose that every man, when his turn comes, should be able to do some one thing. "The boy who teaches himself natural history by actual bird nesting is healthier and happier, better equipped in body and mind for the battle of life than the nervous, interesting, feverish boy with the big head and thin legs—the wonder of his class." It is well to have a pursuit as well as a study.

The doctor should marry, but his wife should be kept out of his work. Goldsmith said, "I was ever of the opinion that the honest man who married and brought up a large family did more service than he who continued single and only talked of population." By marriage a man's sympathies are extended and his views of life are broadened. A touching picture of the refining influence of sorrow has been given us by Dr. Brown, the author of "Rab and his Friends,' in speaking of his father. He says, "a child, the image of himself, lovely, pensive, and yet ready for any fun, with a keenness of affection that periled everything on being loved, who must cling to someone and be clasped, made for a garden, not for the rough world, the child of his old age. This peculiar meeting of opposites was very marked. She was stricken with sudden illness. Her mother was gone, and so she was to her father the flower he had the sole keeping of, and his joy in her wild mirth, watching her childish moods of sadness, as if a shadow came over her young heaven, were themselves something to watch. She sunk at once and without much pain, her soul quick and unclouded and her little forefinger playing to the last with her father's curls, her eyes trying in vain to brighten his. The anguish, the distress was intense, in its essence permanent. He went mourning and looking for her all his days." But the affection, we learn, softened and refined him, and made him better fitted for his work. His son tells us further that "his affectionate ways with his students were often very curious. He contrived

to get at their hearts and find out all their family and local specialities in a sort of shorthand way, and he never forgot them in after life."

And such attentions are valued throughout life, and the clay is moulded and figured, and ornamented, and enriched, and burned in the fire, and fitted for the battle of life. And the defective articles must be rejected and the broken articles, may perhaps, be mended, but they are never the same again, and, perhaps, we would be better without them. Our ranks must be kept clean. We must have a good, healthy professional growth, and in Ontario I am glad to say that such exists. The regular who adopts the methods of a quack is a much more dangerous individual than the quack himself. But we have others who are by no means quacks, who unfortunately lack discernment, and who do not mean to do the harm that they certainly occasion. Our duty is to relieve and not to cause suffering. Some surgical procedures of the present day require severe criticism. Surgeons may be too conservative or not conservative enough. A few years ago we had an epidemic of the former, and now we are suffering from a plague of the latter. We are able to do so much that we are apt to do more than we should. I hope that the few dangerous individuals will soon be quarantined, so that the death rate and the cripple rate may diminish and the epidemic be checked. The epidemic has been spreading and has assumed large proportions, and seems to affect chiefly young and middle-aged nervous women. Men with exposed organs appear to be fairly free from its ravages.

But, as a profession in general, we have been making great strides. The State is being saved from the enormous losses incident to great epidemics, and the medical profession is out of pocket as a consequence. It does not appear that proper efforts have been made to reimburse the doctors. We are asked to do what our friends, the lawyers, would take good care not to do without an arrangement for the payment of a proper fee We are asked to register births, to register deaths, to notify regarding infectious diseases, and to attend the poor without remuneration. These are not charities. We are assisting and defending the commonwealth, and the commonwealth should pay us, and we should organize and agitate with this end in view. Unless such matters are attended to and a new method of payment of members of the profession is adopted, the numbers entering must be considerably reduced. In China the doctor is paid for keeping the family in good health. In Canada we, as a profession, protect the people from dangerous diseases, but the services are not paid for, and are scarcely recognized. A few officials take all the fees. Our real charity is not among the really needy, but among the

apparently well to do. A proper revision of the relation of medical and surgical fees to one another is much needed, and the ruling of the Association on the ethics of commissions is required. A special committee of this Association should be appointed to investigate these matters and submit a report at our next meeting. It has been said that knowledge is no barren cold essence, but it is alive with the colors of the earth and sky, and is radiant with light and stars. If we endeavor to follow along the lines of experimental investigation of natural phenomena, we must obtain a fondness for the impartiality and truth which such a study incites. Says Draper, "we will thus dedicate our days to the good of the human race, so that in the fading light of life's evening, we may not on looking back, be forced to acknowledge how insignificant and useless are the objects that we have pursued."

A paragraph that has greatly interested me by way of retrospect, is the following: "In olden times the surface of the continent of Europe was for the most part covered with pathless forests; here and there it was dotted with monasteries and towns. There were low-lying districts sometimes hundreds of miles in extent, that spread agues far and wide. In Paris and in London, the two largest cities, the houses were built of wood, and daubed with clay and the roofs were thatched with straw or reeds. There were no windows and very few had wooden floors, until after the introduction of the saw-mill and such a thing as a carpet was unknown. A little straw scattered here and there in the room was the covering used for the floor. As there were no chimneys, the smoke of the ill-fed, cheerless fire, escaped Indian wigwam-wise, through a hole in the roof. It is needless to say that in such habitations there was but little protection from the weather. No attempt was made at drainage and the putrefying garbage and rubbish were thrown out of the doors. Men, women and children slept in the same apartment and not unfrequently with domestic animals as companions, and as a consequence, neither modesty nor morality could be maintained. The bed was usually a bag of straw, and a wooden log for a pillow. Personal cleanliness was unknown and great officers of the state, even dignitaries so high as the Archbishop of Canterbury, swarmed with vermin. Perfumes were largely used to conceal personal impurity. Many of the citizens clothed themselves in leather, a garment that with its ever-accumulating impurity lasted for many years. If a man could procure fresh meat once a week for his dinner, he was considered to be in easy circumstances. Not only was there no house drainage but there was no street sewerage. There were no pavements or street lamps. After nightfall the shutters were thrown open and the slops were unceremoniously emptied down,

to the discomfiture of the wafarer, tracking his path through the narrow streets, with his lantern in his hand." What a picture for us to criticize in the present day! And yet we scarcely realize all the hard work, ignorance, bigotry, persecution and glorious self-denial that have given us what we have to-day in our Western civilization.

Much progress has been due to the work of societies, such as that grand old society, the Royal Society of London. As university men and as educationalists knowing as we do that our present day conditions are due to the dissemination of knowledge, we should organize and promote similar societies and see to it that they hold as prominent a place in the community as the churches. It was by the Royal Society that Harvey's discovery of the circulation of the blood, was first accepted. The same Society gave so much encouragement to vaccination that Queen Caroline submitted her own children to the operation. All scientific observers are satisfied that Queen Caroline was right and the Royal Society was right. Then it was demonstrated that scurvy, the curse of long sea voyages, could be cured by the use of vegetable substances. We follow along and find jails and buildings ventilated and illuminated with gas. Cities were lit up and made much more habitable. If we expect to have progress, we must rally around our educational institutions and see to it that they are well provided with the means required to carry on efficiently and well the work of scientific investigation, and that they are untrammelled by the views of either church or state, remembering always that the slogan of the twentieth century is, "Knowledge is power." If this is done, man cannot lapse again into the dark days of the dismal centuries, when pestilences were looked upon as the visitation of God and not as we know them to be, the consequences of filth and wretchedness, easily prevented by personal and municipal cleanliness. In the twelfth century it was found necessary to pave the streets of Paris, as the stench from them was unbearable. Dysenteries and spotted fever, that had been prevalent, diminished and a sanitary condition was soon established, that approached to that of the Moorish cities of Spain, that had been paved for centuries. But alas for backsliding. Many of the Spanish cities have been allowed to lapse into an insanitary condition and the evidences of Spanish sanitation, as I saw it in Cuba, were not calculated to excite enthusiasm. Under the control of Western civilization and the proper application of knowledge matters have been changed. When it was decided that plagues were not a visitation of God, quarantine was established. Nothing has protected the human race to a greater extent than the establishment of proper quarantine.

When anesthetics were first introduced their use in labor

was discouraged, as it was believed that woman should not escape the curse denounced against them in Genesis. Now anesthetics are, I hope, very universally used, to prevent the awful agonies of labor, by an enlightened educated, scientific and humane profession. The very best evidence that can be brought forward to emphasize the benefits to mankind of improved methods of living has been obtained from the British Government reports of life insurance transactions, carried out in the seventeenth and again a hundred years later in the eighteenth century. In 1693, the British Government borrowed money by selling annuities on lives from infancy upward on the basis of the average longevity. The contract was profitable. Ninety-seven years later, another tontine of scale of annuities on the basis of the same expectation of life as in the previous century, was issued. These latter annuitants, however, lived so much longer than their predecessors, that it proved to be a very costly loan for the government. It was found that while ten thousand of each sex in the first tontine died under the age of twenty-eight, only five thousand seven hundred and seventy-two males and six thousand four hundred and sixteen females in the second tontine died at the same age one hundred years later, or in other words, 20,000 died in the first period and only 12,188 in the second period of one hundred years later, a very greatly diminished mortality, all conditions being identical except the improvements wrought by advanced sanitation.

Once fairly introduced, discovery and invention have unceasingly advanced at an accelerated pace. Each continually reacted upon the other, continually they sapped supernaturalism. The diffusion of knowledge by the newspapers and reviews has immensely increased the power of the press. Where ignorance reigns, crime is prevalent. In such cities as Naples, where the education laws, such as we have in Ontario, either do not exist or are not enforced, the streets are filled with street arabs, who are a nuisance and a menace to society, growing up in squalor, ignorance and filth. In our Western civilization such a condition of affairs cannot exist and I trust never will exist. The intellectual enlightenment, surrounding scientific activity, has imparted innumerable invaluable blessings to the human race. Science is not confined to any one nation, but is cosmopolitan. We are living in an age of electric progress. The marvels of electric force have been studied and utilized for the great benefit of mankind. To-day the mummified remains of an Egyptian King Amenophis, who lived thousands of years ago, are viewed in the original tomb, with the aid of the rays of the electric light. The telegraph and the telephone are to be found in the very heart of darkest Africa. The discovery of

the achromatic microscope has rendered us great assistance in studying the nature of disease, and the X-rays has enabled us to pierce what was before impenetrable gloom. The harvest is ready but not riper than it has been for centuries, but there are more enlightened and better educated and better equipped workers in the field. There is very much to be done and we must constantly be up and doing. I say this particularly to the young and enthusiastic. The foundation of our knowledge as modern doctors is science and the superstructure must be built upon scientific lines. Hospitals are needed, not such as those that were first established, but modern, properly equipped and up-to-date institutions, with modern up-to-date methods.

Many hospitals have been erected through the munificence of individuals in the towns throughout our country. Every town of any size should have its hospital. Such institutions are not intended to do the work of the larger ones in sixteen larger centres; but there is a certain amount of work that can never reach the larger centres that can be done very satisfactorily in smaller hospitals properly equipped and served by a properly educated profession. Assistance from the larger fields of observation can be obtained when required and under improved conditions such aid will be of great service. The almost universal use of the electric light aids our work very materially.

Our prisons have been improved. Our younger criminals have been cared for. Our insane have been kept off the streets. Our poor are being looked after, and now health and comfort go hand in hand. The true function of our study and deliberation is to prevent rather than to cure disease, and we are fulfilling our functions. But yet death reigns everywhere and at all times, and in all places, and we know it. But he is not the stalking giant that he was. He has been marvellously reduced in stature. Our medical press requires considerable regeneration. The articles published are not censored as rigidly as they should be. Much that is written and published is incomplete, speculative and inaccurate, and hence is misleading. Our journals should be purely scientific publications and not the hot beds for the propagation of unstable theories. Looking back is not always a pleasant pastime, but there is a definite certainty about it, that it does not belong to the future. All that has been printed is liable at any time to be reviewed.

And now in closing, let me say that during the year that has passed, a much desired amalgamation has been effected between two of our greatest educational institutions, Trinity and Toronto University. At first the task looked like a hopeless one, but owing to the good feeling existing between the rival faculties, it was finally achieved. Our province stands high in the bank-

ing world, in the musical world and in the educational world. I was gratified to hear our provincial University so well spoken of in the mother land and even in Egypt. The Medical Faculty of the University of Toronto, as now constituted with its ever increasing facilities, stands second to none in Canada at least, and the work accomplished, as evidenced by the standing obtained by our students abroad, is of a very high order.

Fathered by this Association, is an institution intended to be a guardian and repository of our archives. We must be prepared to preserve our records for the use and assistance of those who come after us. A calamity befell the world when the Alexandrian library was burned, and a calamity would befall the profession of this province if the books, collected under the name of the Ontario Medical library, should meet with a similar fate. We are about to occupy new premises, but we need more money to carry on the good work. This is not a municipal matter but a provincial and professional need, and I hope that many of the out of town members of this Association will assist us. Such an institution to do the work well must be liberally endowed.

Three trustees have been appointed, and through the generosity of the members of the profession of Toronto, of our good friend, Prof. Wm. Osler, of Mr. Geo. Gooderham, of Mr. E. B. Osler, Mr. Timothy Eaton and the executors of the Estate of the late H. A. Massey, ten thousand dollars are already in sight.

I desire to thank this Association for the great honor it has conferred upon me, and to thank those who have organized and arranged this meeting.

I feel sure that the hope and desire of every member of this vigorous twenty-four year old Association is that it may long be spared to write, to teach and to guide the medical profession of this our great Province.

A CASE OF APPENDICITIS IN PREGNANCY.*

By Dr. JOHN SHEAHAN, St. Catharines.

My only excuse for bringing to your notice the subject of appendicitis is that I hope to call your attention to it as a most unfortunate complication of pregnancy in which instead of one, the lives of two human beings are involved.

Perhaps the most common complications of the abdomen in pregnancy are ovarian tumors and fibroids of the uterus. Shring, of Sydney, claims that hydatid cysts occupying the pelvis are seen occasionally in Australia as complications of pregnancy. These cause mechanical conditions that interfere with the pregnant uterus by pressure.

Any one of these may or may not be sufficient to terminate pregnancy by abortion or may threaten life by gangrene from torsion of the pedicle of the tumor.

Other complications of pregnancy are more dangerous, viz.: The acute infective processes that may occur within the abdomen. Under this heading may come appendicitis, salpingitis, cholecystitis or peritonitis due to perforative ulcer in typhoid fever, tuberculosis, actinomycosis, carcinona, or gastric u cer.

Under any of these conditions we must determine whether to deal directly with the pathological condition by operation and leave the physiological pregnancy to terminate naturally, or whether we should adopt an expectant plan of treatment hoping that the pathological conditions may not become serious to life—and not operate because pregnancy exists.

Up to recent years one may safely say the teaching has been to adopt a policy of non-interference: but in the light of the modern aseptic surgery the opening of the abdomen even in the pregnant state has become a comparatively frequent operation, and one not to be dreaded under proper conditions. Of course no one would feel he was using the best judgment if he operated in a case where it could safely be avoided. But in cases of the acute infective type, as already enumerated, that demand active interference if pregnancy did not exist, operation ought not to be decided against if pregnancy happens to be a complication or rather a coincidence.

The case I desire to call your attention to come into the St. Catharines L. & M. Hospital on December 10th, 1902, and was operated on immediately.

These few notes I have obtained from Dr. Campbell,

* Read at meeting of Ontario Medical Association.

who attended her prior to her entry for a few days. Mrs. B. aet. 25, primapara, four months pregnant, no history of previous appendicitis, but history of chronic constipation.

She was on a trip from Salt Lake City to her home in Thorold, when she was taken with pain in the hepatic region, in the sleeping car on December 4th. She couldn't straighten out her leg properly next day, but otherwise felt little inconvenience except some slight tenderness in the abdomen. Arriving home on December 6th, in the evening she consulted Dr. Campbell.

Temperature and pulse normal. Frequent desire to urinate with pain in the bladder and over the liver. Catheter passed, ℥ ss of urine drawn off. Morph gr. $\frac{1}{8}$, given hypodermically. She slept all night. December 7th, patient felt better. Temperature normal, pulse over 100, no pain. Frequent urination, pain in hepatic region and tenderness over the bladder. December 8th, a.m., chill. After this temperature was 104°, pulse 140, Resp. 30. Vomiting occurred a few times during the day. Pain in hepatic region severe and tenderness over liver and over McBurney's point, though the rigidity of the muscles of the part was not especially marked. In evening, temperature dropped to 98°, with pulse 120, but later both went up to temperature 101°, pulse 125. December 9th, a.m. Temperature 103°, pulse 140. Tenderness over right half of abdomen marked. P. m., temperature 102°, pulse 140. Tenderness marked over McBurney's point with guard tension of muscles. She was taken to the hospital and operated on in the early morning hours of December 10th. A thick and inflamed appendix was removed entire. There were no adhesions. Recovery complete and convalescence uneventful.

This case was operated on practically within 48 hours from the onset of acute symptoms, though she had been complaining of indefinite pains for a day or two before. The condition of the appendix was such that she would probably have recovered from that attack, though the symptoms were urgent enough to suggest a more severe pathological condition than was found.

I might remark that the patient developed albuminuria at about the seventh month and premature labor was induced in the eighth with the birth of a dead child. Just a year after this she bore a normal healthy child and was perfectly healthy herself. I cannot believe that the albuminuria was in any way connected with the appendicitis or operation but was due to other causes.

One point of special note was the location of the pain first in the hepatic region and later in the bladder, and again in both places before the pathognomonic indication in McBurney's point. She was perfectly relieved of pain by the operation.

Koenig summarizing the literature of this subject states

that until September, 1899, nearly one hundred cases had been placed on record, of pregnancy complicated with appendicitis. Gestation was more frequently affected by the recurrences of abortion. Where the pregnancy continued to full term the fœtal mortality was over 50 per cent., being due in some cases to direct intrauterine infection of the fœtus either by continuity or by the blood or lymph streams.

Vinway, in France, records four cases of appendicitis in pregnancy, and refers to a total of thirty-two cases. The comparatively small number tends to show that pregnancy does not set up torsion of the appendix or colitis, conditions which would increase the virulence of the colon bacillus and so induce appendicitis. In the thirty-two cases there were ten deaths, a percentage of 31 per cent., which is higher than that of Armstrong in his series of 517 cases of ordinary appendicitis with a mortality of 12.8 per cent.

Of these were recorded nearly one hundred cases from December, 1894, when the first case was reported by Dr. Mundé, until September, 1899. There will probably be another one hundred cases in the next five years which brings us to the present year.

The first case brought forward by Mundé is of such universal interest that I feel like giving the details, first, as showing that the case recovered, and second, that an abscess developed—a condition which we try to forestall by early diagnosis and operation.

Case I.—Mundé—Mrs. F. P., eight months pregnant on Sept. 15th, 1894. She was seized with pain and tenderness in the lower part of the abdomen equally in the median line and on both sides. Temperature, 101° and 102° F.; temperature fell to 99° and the patient was expected to sit up next day. On 21st, about 9 a.m., she suffered an attack of violent pain in the pelvic region, accompanied by a pronounced chill and fever; temperature, 101.5° F., while at the same time labor commenced. On 22nd, about 2.30 a.m., a dead child was naturally delivered. The birth of child was followed by semi-delirium and prostration. The abdomen still continued universally tender. Twelve hours after, decided dullness could readily be made out, together with a very acute pain on pressure in the right iliac region, the outlines of the uterus being free. Vaginal examination being negative now, the pain was localized Temperature, 102°; Pulse, 120.

Diagnosis.—Perforative appendicitis. On 24th and 25th the temperature was nearly normal; on 26th it jumped to 102°; on 27th, 101.8°. On 28th operation was done; abscess found completely closed off by a thick wall of agglutinated intestines. Recovery uneventful.

Case II.—Mundé—Had history of appendicitis; confined at

term; localized abscess found in appendiceal region at operation seven days after. Patient died three days later.

Case III.—Mundé—Much the same history; operation; death.

Case IV.—Abrahams—History of constipation; nine weeks pregnant; pain for three days; miscarriage; relief from pain for a day. Patient operated on eight days after abortion, and eleven days after the occurrence of pain Dr. Mundé opened a big appendiceal abscess with gangrenous appendix. Patient died.

Other cases, such as a recent one reported by Huing, of Sydney, Australia, show that an operation may be successful in gangrenous appendicitis, even if not operated on until the ninth day, and the patient went on to full term and was delivered of a healthy, living child, the line of incision remaining sound. This case is given in full in *Practitioner* for June, 1904.

Etiology.—The causes that produce appendicitis in pregnancy must be the same as produce it in man or in the unimpregnated woman with, perhaps, the one exception, where the appendix hangs over the pelvis and is exposed to pressure and injury by the enlarging uterus. R. T. Morris finds the appendix in this position in thirty-five per cent. of his cases, and considers the possibility important of the enlarging uterus breaking down adhesions about a previously inflamed appendix and thereby lighting up an acute attack. Pressure of the enlarging uterus on an appendix would be a very probable cause of acute trouble if the appendix contained a coprolith or fecal concretion. This traumatism might occur during labor, and the acute attack of appendicitis arise as a complication of the first few days after, and be the explanation of the rise in temperature, etc., when the obstetrician would naturally be looking for infection of the parturient passages.

There is almost always a history of chronic constipation, perhaps long-continued and obstinate, and if one considers that constipation stands in a causative relation, we have a direct indication for prophylactic treatment in always being careful to see that the bowels in our pregnant patients are properly regulated.

It is also claimed by some, that over-eating will frequently induce an acute attack of appendicitis in persons subject to it, hence another indication for prophylaxis.

Pathology.—The frequent occurrence of abortion in pregnancy complicated by appendicitis, estimated by Vinay at forty per cent., is higher than occurs in pregnancy complicated by the acute infectious diseases, and is referred to the intimate vascular and lymphatic connections existing between the appendix and

the uterine adnexa. Clado described an appendicular ovarian peritoneal fold as being constantly present, and considers that that this carries the lymphatics from one to the other. Lafforgue, however, finds it in only twenty per cent. of the bodies examined. In two of Vinay's cases the appendicitis was due to spread of the infection from the uterus. In the first there was post puerperal infection, which lighted up old appendicular mischief. The appendix was resected with the right tube and ovary. In the other case, a primipara with a history of membranous colitis, there was hemorrhagic metritis due to retention of placental tissue with subsequent appendicitis.

Pinard reports a case of abortion in appendicitis, where the child died very rapidly as a result of direct infection.

It would be interesting to know how the infection passes from one organ to the other. Surely it could not pass along the lymphatics both ways, unless it be in cases where the appendix is attached to the uterine structures.

Late cases of appendicitis with abscess formation are most unfortunate when the uterus forms one wall of the abscess cavity. All appreciate how important it is to preserve the integrity of the walls of the abscess cavity so as to prevent extrusion of the pus into the peritoneum, but the contraction of the uterus in abortion or labor, or the gradual growth of the uterus during pregnancy may so alter the relations of the structures involved that the walls of the abscess may rupture and pus escape into the free peritoneum with fatal results. This is a source of anxiety after operations in these cases when labor pains threaten.

Diagnosis:—The diagnosis of this condition is difficult for many reasons. A uterine tumor of variable size filling the pelvic and abdominal region offers resistance and prevents palpation. The abdominal muscles are on the stretch, rendering it difficult to estimate the amount of guard tension. The intestines are pushed up so much, that in one case reported by Mixter, the appendix was found at the lower end of the kidney. In the case reported to-day, the original pain was located as high as the edge of the liver, and in two days as over the bladder. Great difficulty is experienced in working out the outlines of an appendical tumor. Abraham declares however that there is always a certain uniformity in the symptomology differing only in the severity of its expression.

1. Almost always a history of constipation.
2. The sudden onset of acute abdominal pain, especially severe in the right iliac fossa.
3. The subsidence of the diffuse pain and its localization over the region of the appendix.
4. Vomiting.

5. Rise in temperature and acceleration of pulse.
6. Rigidity of muscles over McBurney's point.
7. Almost always the negative result of a vaginal examination, under ordinary circumstances.

An array of symptoms such as this would undeniably point towards appendicitis. It would however be advisable usually to examine these patients under anæsthesia, as this would allow greater freedom. The same anæsthesia could be prolonged for the operation if thought advisable to proceed; if nothing abnormal is found, no harm has been done.

Differential Diagnosis.—From 1st, right tubal pregnancy. As tubal pregnancy never exists without rupture beyond four months, it is plain that appendicitis could only be mistaken during the first four months, or while the uterus is still in the pelvis. The symptoms that might suggest right tubal pregnancy are the following: subjective signs of gestation as nausea, morning sickness, pains in breast, etc., enlarged uterus, soft cervix, vomiting and colicky pain in the right side of the pelvic cavity. Then at the time of rupture of the tube the patient is attacked by a sudden sharp lancinating pain confined mainly to the right side of the abdomen and just as in gangrenous appendicitis the rupture may be followed by peritonitis. The absence of the following symptoms would exclude extrauterine pregnancy:

1. History of sterility.
2. Irregular menstruation.
3. Skipping of one menstrual period.
4. Escape of decidual membrane.
5. Constitutional evidence of internal hemorrhage, as sudden pallor, thin rapid pulse, sub-normal temperature, and a few other well known symptoms, as restlessness resulting from hemorrhage. On vaginal examination one might feel a doughy tumor on the right side which might be a hæmatoma from rupture of a tube or a continuation of an appendiceal abscess.

From 2nd, acute salpingitis or pyosalpinx. This would probably be a source of difficulty only in the early months of pregnancy, and if it is borne in mind that there is usually a history of infection, specific or otherwise, in salpingitis, that furnishes a guide to some extent, though the pain, tenderness, and fever simulate appendicitis low down. Exploration alone could determine positively.

From 3rd, cholecystitis—acute infections. Osler says this diagnosis is by no means easy. Nausea, vomiting, rise of pulse and temperature, prostration, distension of abdomen, rigidity, general tenderness, form a picture easily mistaken for appendicitis. Jaundice is not often present but the tenderness will probably become localized soon over the gall-bladder, though it may be deceptive in its situation.

From 4th, attacks of gall stone colic due to contraction of the gall-bladder on large gall stones, whose size prevent them from becoming engaged in the bilious duct, and later on in the common duct, one especially likely to be mistaken for appendicitis because of the absence of jaundice, a history of dull pain over the liver radiating beneath the right shoulder blade can usually be elicited, and the pain or tenderness persist in the region of the gall-bladder. Some morphia will generally relieve this pain, leaving very little tenderness over most of the abdomen and none over the appendix.

Prognosis ought to be good in cases operated on early, and of the simple catarrhal form not operated on.

Vinay reports thirty-two cases with ten deaths, a percentage of thirty-one. The only complication noted of importance was abortion in forty per cent. This accounts for the fact that in half the thirty-two cases the children died. Abrahams says the prognosis is gloomy. He observed sixteen cases with eight deaths, and the mortality of the children was eigthy-five and five-sevenths per cent. Dunlofoy considers the prognosis more serious when the patient is pregnant, although an operation, if done in time and according to the rules, is no more serious than in plain cases of appendicitis.

Deaver says: "Appendicitis may complicate abortion. If the inflammatory condition occurs during the early stage of gestation, abortion generally follows. The usual risks of leaving a diseased appendix in the abdominal cavity are much increased by the pregnant state and the evil consequences of another attack, *i.e.*, gangrene or perforation will be correspondingly greater."

Treatment.—The rule holds good here especially that an inflamed appendix is a source of extreme danger with an abdomen. The removal of the appendix is attended by few if any additional dangers to the mother and fœtus. Mundé's doctrine is: "Treat the case early regardless of pregnancy:" a safe rule for anybody to follow.

Willy Meyer, of New York, lays down rules that will, I think, commend themselves to anybody:

(1) Operate early—within twelve hours—in acute perforative appendicitis,

(2.) Take the pulse as your guide. A quick, rapid pulse (116 to 120 per min.) is an indication for operation, particulary if it is out of proportion to the accompanying temperature.

(3.) In case of doubt operation is better than waiting. If an appendicitis or an abscess is found the effort is well rewarded; if not, the woman is none the worse for it, except an abdominal scar. The fear of interrupting gestation by an exploratory incision is counteracted by the accumulated

instances on record in which pregnant uteri were operated on, cauterized, etc., where an ovarian and other pelvic tumors were removed, and yet pregnancy remained undisturbed.

(4.) Another strong indication for operation is a sudden lull for ten or twelve hours in the symptoms, and then a sudden recurrence of all the symptoms.

(5.) The last indication is a recurrent attack of an old appendicitis during the pregnancy. Operation should be done if it is ever so mild, and especially when it takes place in the early months of gestation. The laparotomy is then easy aseptic, and removes the possibility of future attacks occurring late in the pregnancy, when the proceedure would not be so easy and safe.

Conclusions.—Pinard, of France, has collected forty-five cases of appendicitis complicating pregnancy, the diagnosis being confirmed in thirty by operation or post-mortem. He concludes from these (1) that appendicitis may attack a pregnant woman at the beginning or at any time during pregnancy or the puerperium. (2) In most cases it causes abortion. The child dies, as a rule, very rapidly, as the author's case proves, from infection. (3) It is only possible to save both the mother and the child when the abscess is limited and encysted. (4) Every type of appendicitis may occur. (5) The diagnosis may be difficult owing to the enlarged uterus, or still more so during the puerperium, but is usually possible with care. Treatment consists in operating as early as possible. Induction of premature labor is unjustifiable since pregnancy is not always interrupted if the mother recovers. (7) Prophylaxis consists in operating in every case of relapsing appendicitis in a young girl or non-pregnant woman, during the period of sexual activity to prevent future complications during pregnancy.

A RE-STATEMENT OF THE ATTITUDE OF THE PROFESSION TOWARDS PLACENTA PRAEVIA.*

By K. C. McILWRAITH, M.B. Tor., F.O.S. Ed.
Associate in Obstetrics University of Toronto.

I have been asked by the committee to present to the meeting a re-statement of the attitude of the profession toward placenta prævia, and to limit myself to fifteen minutes in doing it. As the time is so short I shall discuss treatment alone. I have gleaned the opinion of the profession abroad mainly from the proceedings of the London and Edinburgh Obstetrical Societies, the American Journal of Obstetrics and Gynæcology of the British Empire, and such text-books as my library contains. The Canadian opinion is harder to get at. Prof. Adam Wright's book will no doubt aid us in the future, and we hope for many expressions of opinion from those present to-day.

I. The first question that arises is, should we always proceed to delivery as soon as hæmorrhage comes on, whether the child be viable or not?

There are many diverse opinions on this subject, but all are agreed that there should be no temporizing unless the patient can be placed under constant trained supervision within easy reach of the physician. There must also be considered:—

(1) The extent of the first hæmorrhage, and its effect on the mother and fœtus. If the fœtus dies there can be no object in further delay. If the mother nearly dies, further delay is not justifiable, except for resuscitation as mentioned under treatment.

(2) The certainty or uncertainty of the diagnosis. There must be some uncertainty about this until the placenta can be felt through the os. At the hospitals I have had many cases come in with a provisional diagnosis of placenta prævia in which the hæmorrhage was later found to be due to some other cause.

(3) Whether the hæmorrhage was unavoidable or brought on by causes which could be avoided in the future. Accidents are more likely to cause hæmorrhage when the placenta is prævia than when it is normally situated. There is no doubt that unviable children have been saved by waiting, and when the conditions, as detailed above, are satisfactory it should be tried. The patient should be kept in bed and given opiates if necessary.

II. The next question is, what to do?

By far the most popular, and in my judgment the best, treatment, is to do a Braxton Hicks' version: bring down one leg, *and then leave the delivery to nature*, making only sufficient

*Read at the 24th Annual Meeting of the Ontario Medical Society.

traction on the leg to check hæmorrhage in the interval of the pains, and giving such aid as may be required to deliver the after coming head. In partial cases the membranes, and in complete cases the placenta must be perforated with a sharp instrument, as the endeavor to push the finger through detaches the placenta. Detaching the placenta is one method of treatment, but not the one I am advocating. Rapid delivery in the interests of the child results but too often in laceration or rupture of the uterus, post-partum hæmorrhage and death of the mother. Bi-polar version can be done as soon as the os will admit two fingers. This amount of dilatation is present in about 99 per cent. of cases in which hæmorrhage has occurred. In the remaining 1 per cent. the cervix and vagina should be packed with iodoform gauze. To do this put one pair of tenaculum forceps on the anterior lip, and one on the posterior lip and draw the cervix gently down. Pack in and around the cervix with iodoform gauze. The remaining part of the vagina may be tamponed with a kite-tail tampon of absorbent cotton steeped in 1 per cent lysol solution. This tampon should be left from four to six hours and renewed if the dilatation be still insufficient. While the hæmorrhage is being controlled in this way, or if when the patient is first seen it have ceased from syncope, it is better to give the exsanguinated patient a subcutaneous infusion of normal saline solution before proceeding to further operative measures.

III. Some of the other methods.

(1) Many men advocate the use of Champetiers de Ribes' bag. I have used it and found it to answer very well mechanically. It has never been in order since, and it caused the patient excruciating pain. If the bag is to be used it must be passed within the amnion ; otherwise it detaches the placenta. The objections to this treatment are :—

(*a*) The bag easily gets out of order.
(*b*) It causes pain sometimes.
(*c*) It is difficult to sterilize.
(*d*) It displaces the presenting part.
(*e*) Sometimes ruptures the uterus.

The average fœtal mortality with this plan, so far as recorded, is 61 per cent.—not a very good record.

(2) De Paoli reports 19 cases treated with Bossi's dilator and delivery by forceps or version with the loss of one mother and three children—an extraordinary record. I doubt if it will soon be duplicated, for the dangers of dilatation by any method are great. Whitridge Williams recently published the history of a fatal case of placenta prævia. He dilated the os with seeming ease with his fingers and delivered. Post-partum hæmorrhage commenced. He drew down and sutured a lacer-

ated cervix, but the woman died. The autopsy revealed the fact that the tear had extended up the uterus and that the lower part of it only had been stitched. I greatly prefer fingers to any of these branched steel instruments as a means of dilating the os. (Bossi's and Walscher's dilators passed around). They have, as you see, an indicator outside to show how far the points are being separated; but one cannot tell how much dilatation and how much laceration is being produced. When one uses one's fingers in the method advocated by Harris, one can tell what he is doing and when to stop. Remember, however, that I do not advocate dilatation in placenta prævia by *any* method except gauze plugging as detailed above.

(3) Lawson Tait advocated Cæsarian section for placenta prævia, perhaps because he seems to have placed the maternal mortality from other methods at 50 per cent. Gustave Zinke in 1901, quoted eight cases of Cæsarean section and two Parro's operation; five mothers and six children lived. Two mothers were said to have been moribund at the time of operation, but even leaving these out the death-rate was 1 in 8, whereas the estimated mortality by other methods is only 1 in 18 or 20.

(4) Rupture of membranes.

When the pains are strong and the head comes down into the pelvis, rupture of the membranes may be sufficient, as the head presses on the placenta and controls the hæmorrhage. We must remember however, that rupture of the membranes is sometimes followed by a pause in labor, and this pause may allow dangerous hæmorrhage to take place, which we are then without means of controlling.

IV. Post-partum hæmorrhage.

The cervix is drawn down as for tamponing in ante-partum hæmorrhage, and the uterus, cervix and vagina tightly packed with iodoform gauze. One writer has had good results from flushing the uterus with a solution of suprarenal gland, 30 grains to the pint of water.

V. Sepsis.

The obstetrician should always be as aseptic as possible, and he cannot therefore take especial precautions in these cases; but in giving a prognosis the very great danger of septicæmia should always be borne in mind.

ABSTRACTS OF PAPERS READ BEFORE THE ONTARIO MEDICAL ASSOCIATION JUNE 15th AND 16th.

Occipito-Posterior Presentations. — Dr. A. A. Macdonald, Toronto.

Since the advent of antiseptics and anesthetics a new era has arrived in obstetrics, as in surgery. They are exceedingly useful in correcting faulty presentations. Occipito-posterior presentations occur in 1½% of all labor cases. Formerly the single blade forceps were used to cause the head to rotate. Herman, in his "Difficult Labor," gives three directions for the use of forceps in treatment: (*a*) pull, (*b*) flex, (*c*) rotate. The practice I advocate is, briefly, as follows:—If you are called to a case late, but before the membranes have ruptured, wait until the os is dilated, then introduce the hand and rotate one-quarter turn, converting the case into an Occipitic-anterior. To do this, fully anæsthetize the patient, sterilize the parts and your hands, insert the whole hand and grasp the head. The occiput now being anterior, flex the head and hold it in position until the forceps are applied and locked. There is no injury to the child's neck, as the turn is only one-quarter. With the forceps on delivery is readily effected, and without laceration.

Congenital Bilateral Dislocation of the Hip.—Dr. H. P. H. Galloway, Toronto.

Dr. Galloway exhibited a patient with congenital bilateral dislocation of the hips, treated by the Lorenz Bloodless Method. He also gave a brief review of the present status of the Lorenz Method. The case presented, Dr. Galloway explained, was one of the fortunate ones in which he had been able to secure a perfect result. He showed a number of photographs illustrating the various stages in the treatment of this patient.

The results gathered from an exhaustive study of reports of cases treated by the Lorenz Method may be summarized as follows: Lorenz reports 50 per cent. of unilateral cases cured, and 25 per cent. of bilateral cases cured; 50 to 60 per cent., good results; 20 to 30 per cent., failure. By good results is meant that anterior transposition is accomplished, the head of the bone not being replaced in the acetabulum, but considerable improvement in the gait being effected. By Hoffa's Method, which differs slightly from that of Lorenz, 30 per cent. of unilateral cases, and 7.7 in bilateral cases, are reported cured, with 50 to 60 per cent. anterior transpositions.

The results of the Lorenz American tour are exceedingly disappointing. Most cases have relapsed, and the results are

not at all good. Sherman gives the following dangers in the method: (*a*) paralysis from injury to the nerves; (*b*) fracture of the pubis or femur; (*c*) gangrene of the limb.

It would appear from the study of these statistics that to get one perfect result ten cases must be put up in dressings for from six to eight months. This is highly undesirable, as, in 60 per cent., a few weeks only are necessary to accomplish anterior transposition. Dr. Galloway pointed out that the great difficulty in reducing the dislocation is the construction of the capsule which exists between the head and acetabulum. He advised cutting down anteriorly, slitting this contruction and replacing the head. In concluding he expressed his opinion that the Lorenz Method was fast losing ground.

The Relative Importance of the Clinical and Bacteriological Evidences in Diphtheria.—Dr. Sheard, Toronto.

Mr. President and Gentlemen:—I have not thought it wise to present to you a set paper this evening, but shall submit some ideas with the object of eliciting an expression of opinion from those members of the profession assembled here. Many physicians imagined that the discovery of the Klebs-Loeffler bacillus and the proof, by injection into Guinea pigs and cats, of its production of diphtheria, settled the question beyond further discussion. But I make bold to state that the physician who imagines we know all about diphtheria is confronted with difficulties and troubles at every turn. I am fully convinced we cannot depend exclusively on the findings of bacteriological examination in these cases. There are many cases which present no physical sign, but in which the bacilli are undoubtedly present, and the generally accepted opinion that when the Klebs-Loeffler is present we have diphtheria is not always true. Whether the absence of symptoms is due to a personal immunity or not I am not prepared to say.

There are four distinct varieties of Klebs-Loeffler bacilli: the long forms, the short, the attenuated and the pseudo-bacilli. They produce soluble toxins and are sometimes associated in their action with pus organisms. These toxins produce the symptoms which we designate diphtheria.

I have a series of seven cases diagnosed as posterior fibrinous rhinitis in which a series of bacteriological examinations failed to reveal the presence of Klebs-Loeffler, but each case was followed by paralysis. We generally admit with paralysis we have diphtheria. The virulence of diphtheria varies much according to the seed, the mortality sometimes being over ninety per cent I remember a man from Buffalo, who stopped at the Brown Hotel. Seven new cases developed from exposure, of whom six died. Some time ago a Russian family of

nine set out for Toronto. Two of them died at sea of diphtheria, two more at Montreal, and two others in Toronto. All this bears out the teaching that diphtheria is due to a particular form of vegetable organism, and as such, is subject to the laws which govern the growth of all seed in various soils.

The sequelæ are due entirely to the toxins, the extent of the membrane being of no consequence in this connection. If we have the cellulitis and no adenitis the condition is most serious, the toxins entering the nerve trunk and destroying their vitality. The sequelæ may be expected at any time from the third week to the third month.

Many conditions are due to the associated pus organisms, such as the secondary eruptions, which are identical with those of septicæmia, and in no way dependent upon the Klebs-Loeffler

Another form of bacterial diphtheria is the post scarlatinal type in which, during the second week of the fever, the patients have the Klebs-Loeffler but exhibit no symptoms—they invariably get well and are not infective. I have records of sixteen such cases. Again we have the association of scarlet fever and diphtheria, the diphtheria not following the scarlet fever, but both diseases existing simultaneously in the same patient as a result of two separate exposures, the incubation period of scarlet fever being four days, whilst that of diphtheria is about six days. At the Isolation Hospital we have a separate ward for these mixed cases. Again we have those cases of post-diphtheretic scarlet fever, where the scarlet fever follows closely on the heels of the diphtheria, and where, in spite of any form of treatment, we have a mortality of over eighty per cent. And, as these cases occur as frequently in private houses as in hospitals, they cannot be accounted for by infection from one hospital patient to another. A frequent experience at the Isolation Hospital is to have whole families sent in, half of whom are suffering from diphtheria, the other half from scarlet fever, showing the correctness of Sydenham's contention that there exists a far greater intimacy between these two diseases than the private physician would care to admit.

I can report several cases in which, after weeks of most energetic treatment, the bacilli could not be gotten rid of, and though such patients were discharged, no new cases have been known to result from them. One patient in the scarlet fever ward developed otitis media in the discharge from which the Klebs-Loeffler bacilli were found. He was discharged and no cases resulting have been reported. From these experiences I am convinced that when the bacillus of diphtheria exists in pus it is innocuous and non-virulent.

In conclusion, these questions naturally arise: (1) Is scarlet fever antidotal to diphtheria? The answer appears to be

in the affirmative. (2) Does not diphtheria aggravate scarlet fever? The answer again is "yes." (3) Is the difference in the two diseases due to the evolvment of a soluble toxin by the Klebs-Loeffler bacillus? Osler once said to me, "If the rash appears, disappears and re-appears, it is in all probability a septic rash." The scarlet fever rash, we know, does not disappear and re-appear, but there are many septic cases such as recurring erysipelatous rashes, all closely connected clinically with diphtheria and scarlet fever.

Enlargements of the Prostate Gland. — Dr. F. W. Marlow, Toronto.

Dr. Marlow gave a very comprehensive account of the anatomy of the prostate, explaining most carefully the position and variations of the anatomical middle lobe.

Prostatic enlargement, he said, does not necessarily mean prostatic obstruction; according to Sir Henry Thompson, while 30 per cent. of men beyond the age of fifty-five have prostatic enlargement but 5 per cent. have obstruction. The etiology of the condition is still obscure, two theories most in vogue at the present time are, (a) prostatic enlargement is a local result of a general arterio schlerosis (held by Guyon and the French school). This is opposed by Freyer, Casper, Bruce, Clark, etc., who regard arterio schlerosis as conductive to atrophy and not hypertrophy. (b) On account of similarity in the structure of the prostate and the uterus Velpeau claims the existance of an analogy between prostatic enlargement and fibro-myoma of the uterus.

The enlargements may be uniform or more frequently asymmetrical, the enlarged portion raising the vesicle outlet, stretching the urethral walls and forming a pouch in which residual urine collects. The symptoms of the trouble are increased frequency of micturition due first to irritation of the growth, but later to diminution of the blader capacity. There is difficulty in starting the stream which is small without its normal projection curve, and followed by dribbling. With proper attention to the history and symptoms, and careful digital examination the diagnosis should be easy.

Surgical Treatment of Enlargement of the Prostate. — Dr. G. A. Bingham, Toronto.

The methods employed will depend entirely upon the individual case. One man with no symptoms but increased micturition, may be carefully and scientifically introduced to catheter life.

While in another case with overflow, cystitis and possibly pyelitis, drainage by median perineal cystotomy done under a local anæsthetic is demanded. Between these extremes are a number of cases amenable to radical treatment, and for these the following operations have all been done.—(a) Orchidectomy—the shock is severe and the operation not generally useful and is now abandoned. (b) Vasectomy, slow and uncertain and applicable to but a limited number of cases. (c) Perineal and suprapubic prostatectomy. Of these the most rational and scientific procedure is the suprapubic. In this the field is freely exposed, the gland readily reached and easily shelled out of its attenuated capsule. The results are usually most satisfactory.

The Treatment of Prostatic Hypertrophy.— Dr. T. K. Holmes, Chatham.

From a careful consideration of the subject Dr. Holmes concludes—that castration and vasectomy are of little value, that the Bottini operation, while not in general favor, has many good points and deserves of a more careful study and a wider employment; that suprapubic prostatectomy is difficult in fat subjects the perineal method is the one most generally useful. The gland is drawn down into the wound by means of Syms' rubber bag and carefully enucleated from its capsule. If is it desirable to avoid damage to the ejaculatory ducts Dr. Young's (Baltimore) device for pulling down the gland and performing the operation visually is recommended. Dr. Holmes gave the history of two successful cases, in one he employed the Bottini operation, in the other median perineal prostatectomy was done. In conclusion he warned the profession against advising the constant use of the catheter, as it almost invariably resulted in cystitis. "There are 100 men in this room and probably 20 of us will have to seek relief for an enlarged prostate. We should advise to others the same treatment that we ourselves would like to receive."

Neurasthenia in Some of its Relations to Insanity.—Dr. J. Cambell Meyers, Deer Park, Toronto.

Further experience has confirmed Dr. Meyers in the opinion he expressed at the Canadain Medical in '98, "that neurasthenia in certain of its forms frequently terminates in insanity, and moreover, certain symptoms usually classed as neurasthenic are really incipient stages of mental disorder by early treatment of which insanity may be averted."

Cerebrasthenia, or brain exhaustion, (to which the paper was largely confined) arises chiefly from mental overwork accom-

panied by excitement, worry, disappointment, grief, trauma, physical shocks, pregnancy, lactation and various toxemic conditions. An exactly similar series of causative factors we find operating in idiopathic insanity. The symptoms are: Difficulty of concentration, lessened will-power and self-confidence. The patient becomes introspective, is morbidly self-conscious and discusses freely his morbid symptoms with non-medical men in a distinctly thoughtless manner. Loss of family affection, insomnia, dreams, slovenly habits, &c., are all early and prominent symptoms. Comparing these symptoms with those of simple melancholia, we find them to be much the same, the only difference being that in the latter they are intensified. The patient, after repeated attempts to be relieved of his ailments, has gradually been forced to the conclusion that he can no longer be cured, and consequently, it is useless to try. Finally he can be roused only with difficulty from his torpor. The neurasthenic is now a melancholic, and more advanced stages of melancholia show but an intensification of these symptoms. "I believe," continued Dr. Meyers "that there should be no boundary between neurasthenia and insanity, they being but different stages in the same disease."

Treatment.—Giving the case sufficiently early treatment can accomplish as much in these patients as in most other troubles. The first essential is isolation, which removes the irritation and permits of the useful action of drugs. Hydrotherapy, electricity and massage are important adjuncts in all stages. Travel is not advisable until the patient has had a complete rest.

Clinic on Skin Diseases.—Dr. A. McPhedran,

Impetigo Contagiosa.—The disease is contagious, most commonly occurring on the face or pubic regions, and due to the streptococcus or staphilococcus, or, some believe, to a specific organism. It tends to recur from time to time.

Treatment.—Thorough cleansing and the application of antiseptic ointments such as ung. hyd. amm. chlor. or better, resorcin, 20 to 30 grains in an ounce of lanolin. The principle underlying the treatment is: Cleanse and apply soothing or stimulating antiseptic applications.

(2.) *Erythema Multiforma.*—The trouble commenced in March four years ago as a vesicular eruption, occurring on the hands, face and neck, that is, the exposed parts only. The eruption lasted all summer, faded in the fall, leaving no marks. It returned in March of the following spring and went through the same cycle. The lesions are first vesicular, the pustular, and finally coarse crusts form, which drop off in a few weeks leaving faint marks. No inflamation precedes the vesiculation.

It is doubtless purely a congestion with serous exudate, followed by on exudate of leucocytes and ultimate crusting.

(3.) *Acne and Eruption on the Leg* (syplilitic or tubercular).

Treatment.—Acne.—Difficult to cure in phlegmatic types. Stimulate until slight desquamation, and then soothe. ℞. Resorcin, gr. 20; B. naphthol, dr. 1.2; sulphur, dr. 2; green soap and vaseline, āā, oz. 1.

To soothe a leg ulcer, use Unna's paste: Zinc oxide, 1; gelatine, 2; glycerine, 3. Add, if necessary, ichthyol, 2, 3, 4 or 5 per cent. Apply when liquid, daub over with cotton, and let the patient wear it several days.

(4.) *Tinea Tonsaurans.*—Difficult to cure as the microsporoon is deep down in the hair follicles. Two principles to be observed—thoroughness and perseverance—that is, use any parasitic and keep it up. ℞. Sulphur, dr., ii, in an ounce of lanolin; or chrysarobin, dr., 1 to the oz.

Strain in Heart Disease.—Dr. H. B. Anderson, Toronto.

The influence of severe bodily exertion in inducing rupture of the heart or blood vessels in patients with arterio sclerosis, or in those unused to physical exertion, was illustrated by the exhibition of a number of specimens, with a short history of each.

(1.) A patient dropped dead on the street following rapid walking. The specimen showed rupture of aorta. Presented by Dr. Powell.

(2.) A woman aged 60 died suddenly during the passage of a stomach tube. Specimen reveals rupture of the left ventricle.

(3.) Captain on a boat attempted to carry a heavy tie, fell unconscious suffering from tachycardia; died nine months later, aged 55. Specimen shows rupture of the sinus of valsalva, with aneurismal dilation pressing on to the right heart.

(4.) Patient a moderate drinker, good liver, no history of syphilis, after a week of unusual exertion was seized with a sudden pain and sense of weakness, and died the same night. The autopsy showed a dissecting aneurism involving the whole of the descending aorta, down to the bifurcation of the iliacs. The blood had burst the middle and inner coats of the aorta, making a false passage for it self under the adventitia.

The Surgical Treatment of Epilepsy.—Dr. A. Primrose Toronto.

Dr. Primrose presented the history of two cases of traumatic epilepsy operated on with good results so far. The first patient was a young lad about 20, who gave a thrilling history of shipwreck and exposure at sea, after which the fits developed. The

seizures always commenced in the first two fingers of the left hand, the wound however was on the left side of the head. Was this then a case where the pyramidal tracts did not cross, or had there been a lesion on the right side owing to bursting as a result of the blow on the left side? The left rolandic area was first trephied and electrodes applied in the hand area, causing immediate movement of the fingers of the right hand. This proved that the pyramical tracts did cross. An opening was immediately made on the right side which revealed a thickened dura mater, and but little other change. Some of this was removed, tension relieved, and the wounds closed up. The patient had two or three fits the night after the operation, but since then (some six months now) has been free from them. The second case was the result of a depressed fracture involving only the inner table of the skull, the result of a pitchfork wound. The operation revealed an abcess, which was opened and drained. The patient has since been free from seizures.

Diagnosis of Functional Heart Murmurs.—Dr. R. D. Rudolf, Toronto.

Functional murmurs as first described by Laennec, are soft and blowing in character, occurring most commonly in the position of the pulmonary area, opposite the second left costal cartilage, and are in no way connected with valvular diseases. They are due not to the anæmia as so often taught, but to a condition of hypotonus of the muscles of the circulatory system. That is there is a relaxation of the sphincter muscles guarding the mitral and tricuspid orifices, and permitting of a leakage. In the pulmonary area, the fibrous band around the orifice permits of no dilatation, but the muscular construction of the pulmonary artery permits it to dilate, and consequently we have a condition in which the blood stream flows from one chamber, that is the right ventricle, through a relatively constricted orifice, into the dilated pulmonray artery. This is the most favorable arrangement for the production of a murmur. Dr. Rudolf laid down the following rules to aid in the diagnosis of functional from organic murmurs:—

1. They occur in adolescence and young adults.
2. They are more common in males than females.
3. They all occur during ventricular systole.
4. While the pulmonic area is the most common situation for functional murmurs, it is a rare site for organic murmurs (congenital stenosis being the only one found).
5. Functional murmurs are heard in the neck, *e. g.* Brutix de Diable.
6. As the general health improves, functional murmurs tend

to disappear, organic murmurs on the other hand tend to get louder with increasing strength.

7. Functional murmurs are soft, and accompany rather than displace the first sound.

8. They are not so widely propagated as are organic murmurs.

9. They vary under certain conditions, *e.g.*, they are louder after exertion, and are especially increased on lying down.

10. The pulmonic second sound is accentuated early, even before the murmur is heard; this is not so in organic pulmonary stenosis.

11. They are accompanied with little signs of dilatation or displacement of the apex.

12. Cardio-respiratory sounds are sometimes mistaken—ask the patient to hold his breath and they will disappear.

13. Signs of failing compensation are rare in functional cases.

14. The patients are not conscious of the existence of the murmur. An analysis of the patients in the surgical wards of the H. S. C. showed that in 60 per cent. functional murmurs were present. An analysis of a number of wards in the T.G.H. and St. Michael's Hospital showed the existence of functional murmurs in 50 per cent. of the patients.

15. Fever gives rise to functional murmers. They occur in 66 per cent. of scarlet fever cases, and are apt to occur in rheumatic fever. A useful rule in this connection is, "functional murmurs tend to occur late in fever (e.g. rheumatic fever) while endocardial murmurs appear within the first ten days.

16. Pressure has not much effect as a rule in altering functional murmurs.

Finally, we are all too apt to conclude that there is organic disease when we hear a murmur, and we are too easily soothed into believing the patient organically sound when no murmur can be discovered,

The Diagnosis of Modified Small-pox.—Dr. Hodgetts, Secretary Ontario Board of Health.

Dr. Hodgetts employs the word "modified" to designate those cases where the course is in any way atypical, not to cases modified by vacination—the so called varioloid.

About five years ago the disease appeared in Essex County and Northern Ontario and was variously diagnosed as chicken-pox, impetigo and syphilis. The spread of the affection and the fact that those unvacinated were its victims, soon however established the nature of the epidemic. Since then the disease has continued from year to year with the maximum number of cases in January and the minimum during the summer months. The

virulence of the contagion has been variable, during the earlier stages (preceding pustulation) but slightly contagious, and in many mild cases the contagion seems slight throughout. The regulation incubation period of twelve days has been the rule, but many cases of 15, 16 and 18 days have occurred necessitating the period of quarintine being extended to eighteen days.

The initial symptoms have varied all the way from a passing malaise to severe headache and back ache accompanied by nauseau and vomiting. The initial temperature has been from 100 to 102 F. The mildness or severity of the onset, however, has been no indication of a mild or severe attack. The fever drops with the appearance of the characteristic rash in about 72 hours. The rash runs through its regular series of macules, vesicles, pustules and crusts.

The affection is most frequently mistaken for chicken-pox, impetigo and pustular syphiloderm, and in the differentition the following points are important:—

Chicken-pox:—(1) A disease of childhood. (2) Runs a rapid course, lesions are papules, vesicles and scabs all in twenty-four hours. All over in a week. (3) Premonitory symptoms slight or none. (4) Temperature appears with the rash. (5) Vesicles soft and irregular. (6) Eruption occurs on covered parts. (7) No scar or pigmentation left.

Impetigo:—(1) No elevation of temperature. (2) No initial stage. (3) Begins as a vesicle or vesicular pustule. (4) Occurs on the face, hands and exposed parts. (5) Unsymmetrical and superficial, large blebs. (6) Crust friable, leave no scar. (7) Finger-nails carry the infection.

Pustular Syphiloderm:—(1) The large indurated base of the vesicle, which lacks umbilication, and the history and persistence of the symptoms should prevent mistake.

Inflamations of the Lachrymal Apparatus. — Dr. Burnham, Toronto.

Inflamation of the lachrymal sac is the result of the struma, violence, or the entrance of irritating fluid, or most commonly stricture of the nasal duct. This last condition results in insufficient drainage to the duct and a chronic blenorrhœa is set up. This mucocele is attended by much suffering and constant disturbance and demands effective treatment. Initial leeching, calomel, etc., usually fail to abort the attack; hot linseed poultices and free incision on fluctuation are necessary in the acute stage. To remove the cause and consequently relieve the condition Dr. Burnham operates as follows,—having slit the canaliculus into the sac, he introduces, by means of a syringe, a 3 per cent. solution of cocaine and passes probes No. 1 and 2 only. He then irrigates freely with adrenlin followed by potassium

permanganate 1 in 12000, and last of all passes a silver style which is allowed to remain in position. In three or four days the style is removed, the cocaine, adrenlin and permanganate irrigation repeated and the style replaced. This method of treatment is much less painful and much more effective than the old method of passing the largest probe possible and using no medication. During the process of healing little fibrous bands appear along the floor of the divided canaliculus which act as dams preventing the free exit of the tears and which must consequently be divided.

The Arid Regions of the United States, their Therapeutic Indications in Pulmonary Tuberculosis.—Dr. J. Frank McConnell, Las Cruces, N.M.

Dr. McConnell, a recent graduate of Toronto, gave a very concise and interesting account of the climatology of the great arid regions, to which so many hundreds of patients flock annually, hoping to ward off the ravages of pulmonary tuberculosis. The value of the arid belt consists in the abundance of sunshine, the clear and bracing atmosphere, which is free from dust when protected by the alfalfa meadows, and the fact that it is not subject to sudden change in temperature. Nearly all patients in the early stages of the disease do very well, they are very kindly treated by the residents, and when the disease has become arrested are usually able to obtain employment. It is unfortunate, the doctor said, that so many patients are sent out every year in such advanced stages that they die on the road or live but a few weeks after their arrival. There was little difficulty in arranging for comfortable lodging—food was of much the same variety and price as here. On account of the equable climate patients were very comfortable living in tents, and expenses could be kept down in that way to a very reasonable figure.

Some of the Newer Methods of Diagnosis in Kidney Cases as applied to Renal Surgery.—Dr. W. A. Hackett, Professor of Genito-Urinary Diseases, University of Michigan, Detroit.

Dr. Hackett briefly reviewed the more important devices and methods introduced since 1885, pointing out the use and advantages of each. Chromocystoscopy is a useful method of determining the activity of the kidneys. The patient is given a dose of methyl blue or indigo carmine which are normally excreted by the kidneys in 15 to 30 minutes. By watching the uretral openings with a cystoscope the exact time of the appearance of coloured urine from each kidney can be determined. If one is manifestly slower than the other it is evidently the diseased kidney.

Uretheral catheterization and segregation enable us to collect the urine from the individual kidney. The former method while becoming more and more popular is expensive, and demands skill and patience on the part of the operator. Segregation is open to the objection that the bladder may be diseased.

The history of cyroscopy, or the determination of the freezing point of urine, and the application of Dr. Coppet's law, that the lower the freezing point the greater the concentration was considered in some detail. The method combined with segregation has been shown to be a most valuable aid in diagnosis, and has removed the fear of the surgeon after nephrectomy to a large extent.

Phloridzin Test—after the hypodermic injection of phloridzin a diseased kidney is found to excrete sugar less rapidly than a normal one. Electrical conductivity of urine, X-rays, and various bougies were briefly mentioned also. In concluding the writer explained that these new methods of diagnosis are gradually replacing the old exploratory operation.

Lympho-Sarcoma.—Dr. B. Z. Milner, Toronto.

The tumour occurred in a young man about nineteen, a strong athletic fellow. It was situated in the neck, and examination showed it to be a round-celled Sarcoma. It was removed by operation but the glands in the neighborhood were found to be involved and the growth recurred. The patient was treated with X-rays with no apparent improvement. Coley's fluid was then used and after a thorough trial was abandoned, no benefit having resulted. Finsen's rays also proved useless. The patient was seen at various times by Dr. Powell (Toronto) and Dr. Coley (New York). It was now about a year since the first appearance of the trouble, and the patient was in bad condition. As a last resort X-rays combined with quinine-flunnesence (the quinine being given internally before the raying) were tried. Under this the growth made no further progress and some improvement even was noted. The patient however was so exhausted that he succumbed.

Notes on an Uncommon Case of Rectal Surgery.—Dr. E. Clouse, Toronto.

Dr. Clouse recounted a remarkable instance of a patient's unfortunate adventures with hæmorrhoids. The patient, a prominent clergyman, fell into the hands of a quack who attempted to do Whitehead's radical operation, but was so unfortunate in the result that the mucus membrane and the skin outside would not unite. Shortly after, having moved to British Columbia, he came under the care of a friendly jeweller. This ingenious individual invented for the hapless minister a manner

of stem pessary by means of which the rectum was kept in position. The clergyman wore this device for six long years, suffering the inconvenience and discomfort of having to remove it once or twice a day. Dr. Clouse now saw him again, and had in consultation several other prominent surgeons. They decided that nothing could be done to relieve the situation except a colotomy. This the patient refused and again besought Dr. Clouse to do something for him. Dr. Clouse consented to try what could be done, and with the patient under the anæsthetic, discovered that by snipping the skin just beyond the red border he was able to relieve the tension on the bowel, and a perfect cure was wrought.

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, H. J. HAMILTON, C. J. COPP AND F. A. CLARKSON.

Pulmonary Tuberculosis and its Relation to Other Diseases.

Weber (*Indian Med. Record*) reviews this subject carefully. Diseases which tend to passive hyperemia of the lungs have a hindering action on tne growth of the tubercle, whilst anemia of the lungs favors tuberculosis. Hence patients suffering from congenital pulmonary stenosis often die of phthisis, while those who have leakages in the mitral or aorta valves seldom fall victims to the white plague. Biel's treatment of tuberculosis of the joints by artificially produced hyperemiam, has suggested the treatment of pulmonary tuberculosis by certain positions and local thermal methods with the object of increasing the amount of blood in the lungs. Amyloid of the liver is rarely associated with phthisis, but cirrhosis is fairly common (twenty per cent. or more), while fatty liver is found in almost every case. In the kidney we find similar conditions, the amyloid degeneration being comparatively rare, while parenchymatous, fatty and intestinal nephritis are frequent. Both gout and rheumatism seem to retard the growth of the tubercle. Great meat-eaters, too, rarely become phthisical. This would suggest an increase of meat in the diet of those young persons who are predisposed to phthisis.

It is not always true that cancer and tubercle are antagonistic. Cancer of the pharynx, oesophagus and air passages is often accompanied by tuberculosis. Tubercle so often accompanies lymphadenoma and diabetes that we almost look upon it as the natural ending of these diseases. F. A. C.

Heredity and Cancer.

Authorities have differed widely on this subject, but most of them agree that the probability of cancer is greater in one whose ancestry showed a history of malignant tumor, and all life assurance companies investigate this point fully. The earlier statistics seemed to show that cancer was a family disease. Paget, for example, found in 1857 from an examination of 411 patients, that there was a probable hereditary transmission in twenty-two per cent. Lichtenstern placed the figures at seventeen per cent., while nearly all other tables compiled show that a patient with a family taint is from ten to twenty per tent. more likely to have cancer.

But now comes the archives of the Middlesex Hospital (1904), in which Prof. Karl Pearson, by biometric methods and the construction of "skew curves," arrives at quite a different conclusion. Out of 2,368 female cancer patients, 359 had a history of cancer—15.1 per cent., as against 13.5 per cent. among the ordinary rate, the non-cancerous patients. From these statistics, as valuable as any that have been compiled, we may feel safe in advising our patients with cancerous relatives, that they have no reason to feel alarmed about their own susceptibility to the disease. Inheritance is probably of little importance.

Prof. Pearson also brought out another interesting fact:—That the onset of the disease is later in males than in females by nearly six years. In women the avarage age ws 43.8: in men, 53.3 years. F. A. C.

Bather's Earache.

McAuliffe says (*Wis. Med. Rec.*) this painful trouble comes from water forced up into the eustachian tube by swallowing or by clearing the nose after coming out of the water. It is not caused by water entering the external canal, for there the drum is protected by epithelium, which is tolerant to fluids. Hence the habit of plugging the meatus with cotton is fatuous.

F. A. C.

Disinfection of Thermometer.

The dangers of carrying infection by this necessary instrument are patent to every practising physician. Denny (*Boston Medical and Surgical Journal*) found by careful bacteriological examination that a few drops of formalin on a piece of cotton placed at the bottom of case would keep the thermometer sterile, and would destroy all the common mouth-bacteria most effectually. F. A. C.

OPHTHALMOLOGY AND OTOLOGY.

IN CHARGE OF J. T. DUNCAN, M.B., M.D., C.M.

"Absorption" Treatment of Cataract.

The editor of the *Journal of the American Medical Association* thus answers an enquirer concerning the efficacy of the so-called absorption or disintegration cure of cataract by means of local applications and manipulation of the eyeball.

The ordinary forms of cataract are due to structural changes in the lens, whose fibres, previously as transparent as clear glass, are converted into an opaque substance comparable to ground glass. In rare instances, such as in the early stages of

cataract from diabetes, the opacity in the lens may be due to exudates thrown out between the fibres, and not to actual destruction of the lenticular tissues. This form of cataract is a rare exception to the rule, and if the disease that gives rise to it progresses (as it commonly does), the crystalline fibres themselves are eventually destroyed, and their place taken by opaque material, as in the senile or other common forms of cataract. Bearing in mind these facts one can readily understand how absurd is the "absorption" or any other "cure" of genuine cataract. Neither manipulatian of the eyeball nor local applications, however mild or severe, will avail to restore the destroyed lens fibres. One might as well expect to "absorb" an organic lesion of the cardiac valves by rubbing liniment over the left breast. Apparent improvement or cure of cataract by these methods are mostly due (1) to the imagination of the patient, (2) to the fact that the dulled vision arose partly or altogether from a curable eye disease not situated in the lens (some corneal affection for example), or (3) to the absorption of a diabetic deposit in the lens substance which underwent a partial or total absorption coincident with improvement in the systemic condition. In all these cases the improvement might occur with or without treatment. It must be remembered, also, that improvement in the vision of cataractous eyes sometimes takes place for a time if the local health of the occular apparatus is improved by rest and soothing applications, or if the pupil be kept dilated by atropia or other mydriatics. Finally, there are such lenticular opacities as "stationary" cataracts; the disease progresses to a certain extent and then, without any particular reason, remains in *statu quo* for many years. Doubtless the "absorption cure" has often received credit for this form of "improvement."

Malignant Glaucoma.

W. H. Searles (*The American Journal of Ophthalmology*) reports three cases under this heading. He remarks that he has seen no case of this form of glaucoma reported as successfully treated, but that he has seen several instances of total blindness from it. There is no prodromal period. In the first case the patient had been asleep for an hour on the floor, where the wind blew over his face and head. He was awakened by a sharp pain in the right eye. He was brought to the office, and in less than an hour the eye was stony hard, totally blind, pupil widely dilated, and he was suffering intensely. Paracentesis was done at once. He was put to bed, made to sweat by jaborandi and stimulants; hot water applied every fifteen mnutes, for five minutes at a time, and two per cent. atropine in a four per cent. solution of cocaine used after the hot water for eight or

ten times: then a hypodermic of morphia to put him to sleep. Atropine-cocaine was tested from start to finish, fluid extract of jaborandi, twenty drops at bed-time, followed by morphia if necessary, with quinine during the day. He perfectly recovered his vision in ten days. The other cases reported had essentially the same treatment, but in neither of them was paracentesis employed. Both of them recovered, and in one of them two years has elapsed without any return of the disease. According to every authority, the use of atropine is plainly forbidden in such cases. That glaucoma occurs incidentally with the exhibition of atropine is most true, but it is due to a different cause than the one recognized, namely, obstruction by thickening of the iris base. The glaucoma charged to the use of atropine can always be cured by the further exhibition of atropine. Atropine now comes to the front in a new role It is to become our chief weapon in treating its inflammatory side. Atropine is anti-inflammatory always, because it contracts blood vessels and reduces secretions, and, of course, swelling and tension as well, therefore it is anti-glaucomatous. Atropine removes for the time being one side of the iritic angle, in maximum dilatation, as completely as the best iridectomy, and better still, does it throughout the entire circle. At the finish it leaves no mutilations behind. The author concludes: "Atropine-cocaine reduces volume, blood supply, secretion, intraocular tension, soothes pain, improves nutrition and secures complete rest, and hence, is the logical answer to every glaucomatous process. In every glaucoma there is always sluggish absorption, and we logically turn to jaborandi to meet this defect."

Editorial.

A RECEPTION HOSPITAL.

Psychopathic hospitals or reception hospitals for the insane, or for those whose condition cannot well be differentiated from insanity, are generally approved of and would be a great boon. Senator Foley's bill providing for an appropriation for this purpose has been before the Legislature of the State of New York, and it is hoped that funds will shortly be reported for the purpose.

A simpler and in some respects a better plan would be to have a psychopathic ward attached to General Hospitals, where for a reasonable time, patients in need of isolation and medical treatment might be placed until their symptoms (as often happens) disappear, or until diagnosis of insanity can properly be made and they can be taken to a hospital for the insane. At the recent meeting of the Ontario Medical Association this idea was received with marked favor. We hope to hear that some progressive hospital in Ontario has actually opened such a ward.

THE ROYAL INSTITUTE OF PUBLIC HEALTH.

The Council of the Royal Institute of Public Health is at present considering the establishment of branches of the Institute in the various colonies. The Institute was established in 1886, and was originally founded to obtain Statutary Recognition of Diplomas in Public Health, a recognition which was secured by the Medical Act of 1897. Further in the Local Government Act of 1888 it was provided that all Medical Officers of Health (with but a few exceptions as to small districts) appointed after January 1st, 1892, must possess a registrable qualification in public health.

Besides accomplishing these things, the Institute has published for some time a journal of its own called "*The Journal of State Medicine*," and has founded a library. Her late Majesty Queen Victoria, in recognition of the influence and

work of the Institute, conferred upon it the title of "Royal" and became its patron. The present patrons are His Majesty the King and the Prince of Wales. The President is Professor W. R. Smith of King's College, London.

ONTARIO MEDICAL COUNCIL.

The recent meeting of the Ontario Medical Council was a somewhat uneventful one. The election to the presidency of the able and genial Hon. Dr. Sullivan, of Kingston, was satisfactory to the whole profession of the Province. It is expected that the President for next year will be Dr. Albert Macdonald, of Toronto.

Two of the most prominent members of the Council, removed by death last year, Drs. Moore and Harrison, were much missed. Their successors, Dr. Herald, of Kingston, and Dr. Horace Bascombe, of Uxbridge, are both able and progressive men, and were warmly welcomed by their fellow-members.

The Complaints Committee considered carefully the protest of a number of students who were rejected at the final examination. The most important complaint was that the candidates did not have sufficient time for their clinical work. The Committee reported that the complaints were unfounded, but made one exception in the case of Mr. A. M. Aylesworth, who had taken an excellent stand, but was slightly below the standard in one subject, and recommended that he be passed. The report was adopted by the Council.

One of the most important questions considered was that of Reciprocity of Registration with Great Britain and certain Provinces of Canada. The matter was referred to a special committee, which brought in a report to the effect that they had not sufficient information to enable them to arrive at a definite conclusion.

The Council ratified the recommendations of their special committee on patent medicines to the effect that the Dominion Government should be asked to make it compulsory for manufacturers of patent medicines to display the formulæ of the ingredients on each bottle, one of the objects being to limit the

amount of alcohol in bad cocktails, which have recently been placed on the market.

The financial condition of the Council is said to be fairly good. After paying $7,500 for clearance of mortgage, the Council had a balance of $5,000. The total assets of the Council are $137,000, and the liabilities $50,000, leaving a good surplus to their credit.

There is a general consensus of opinion among the members that the present building should be sold as soon as possible, and a new one more suitable for their purposes erected in a less noisy part of the city.

AMERICAN INTERNATIONAL CONGRESS ON TUBERCULOSIS.

This Congress will be held October 3rd, 4th and 5th, 1904, under the Presidency of Dr. E. J. Barrick, Toronto, and under the auspices of the Universal Exposition, St. Louis, 1904, and of the American Congress on Tuberculosis.

It is considered by the Committee on Organization that all problems and controversies of the pathologists and bacteriologists are comparatively unimportant when compared with the fact conceded by all that consumption is communicable.

On this account the campaign before the Congress will be pre-eminently one of education, not alone of the masses of the people, but also of the professions of laws and medicine. Two issues will be placed before the Congress.

1. To educate all as to the necessity of suitable legislation to arrest and resist the spread and ravages of the disease.

2. To educate and influence public opinion among all classes of our people, so as to secure the passage of wise legislation through legislative bodies quite outside of partisan political considerations, and to so solidify and strengthen public opinion as to sustain the authorities in the enforcement of such laws when once enacted.

It is not considered advisable that such issues should be limited to medical men only. Special invitations are therefore being sent out to those who are interested in this work, and

papers on the prevention of tuberculosis are solicited from all the professions. Those who send contributions but are unable to attend, are assured that their papers will be read before the proper sections of the Congress. Contributions may be written in any language, with a brief synopsis in English.

CANADIAN MEDICAL ASSOCIATION.

We desire again to remind our readers that the 37th annual meeting of the Canadian Medical Association will be held this year in Vancouver, August, 23rd to 26th inclusive. Our friends in the West tell us that Victoria joins hands with her sister city in extending the hospitality of the Pacific province to all the members of our great International Medical organization.

The cost of the trip from Toronto will include the following items:

Return ticket	$ 62.40
Pullman, both ways	34.00
Meals	25.00
Five days in Victoria and Vancouver	20.00
What may be called necessary incidental expenses.	15.00
Total	$156.00

In addition to information given in previous issues, we desire to add something with reference to special entertainments and side trips, going and coming.

Entertainment at Calgary on Way Out.

The Calgary Medical Association is desirous of extending an entertainment during one day on the way out to Vancouver. This entertainment will be a typical western one, and will take the form of an Indian gathering in costume, Indian racing and games, roping and cowboy feats. Those who would like to stop over at Calgary for this entertainment so kindly offered through the Calgary Medical Association, should notify the General Secretary without any delay.

The Social Side at Vancouver and Victoria.

In Vancouver arrangements have been made for various excursions, yachting trips, steamer, rail and tram to surrounds ing points of interest; receptions, private and public; a dinner or a ball. On one of the days of the meeting the delegater

will be taken by tram to New Westminster, visit the asylum there and other points of interest, then take the boat down the mighty Fraser to Steveston, visit some of the canneries, so that visitors will have the opportunity of verifying the stories of the salmon industry; then take the train back to Vancouver —a trip of great interest from start to finish.

In Victoria a committee is arranging a series of entertainments there, viz., reception at Government House, conversazione at the Parliament Buildings, a visit to Esquimalt and William Head Quarantine Station, beside other excursions to points of interest in and about Victoria.

Yellowstone Park.

Yellowstone National Park is situated mostly in the State of Wyoming, in its north-western corner. Those contemplating visiting this "Wonderland" after the meeting in Vancouver, should see that their tickets are routed on return journey *via* the Northern Pacific Railway. From Vancouver the return trip is made over the C.P.R. to the boundary where the Northern Pacific is taken at Sumas. Thence through Auburn and Spokane to Livingston, where change is made for Gardiner, at the entrance to the park. A six days' trip by stage-coach through the park, including meals and lodging at the hotels, which are all first class, will cost $49.50. The park is sixty-two miles from north to south and fifty-four miles wide. The General Secretary will be glad to hear from all those intending to take in this trip on return journey, having been assured that a party of from twenty-five to fifty will receive better attention than smaller ones.

Return Through California, Salt Lake City and Colorado.

As announced above, the Canadian Medical Association has no arrangements in force for return *via* California. For the benefit of those, however, who wish to return that way to St. Louis, the information may be tendered that there will be in force at the same time as our convention an open rate $70.25 from Toronto to San Francisco, good going *via* Canadian Pacific Railway to Vancouver, allowing liberal stop-overs in each direction; final return limit 23rd of October. No certificates are required for this trip, as it is an open rate to all. In taking this trip, members of the Canadian Medical Association going to Vancouver should be routed on return *via* Southern Pacific, Portland to San Francisco or Los Angeles; Southern Pacific San Francisco or Los Angeles to Ogden; Union Pacific to Kansas City and St. Louis. Mr. H. F. Carter, T.P.A., Union

Pacific Railway, 14 Janes Building. Toronto, will supply any further information regarding this route.

Special Certificates.

All delegates must have for themselves, their wives and daughters, if going, a special certificate from the General Secretary, in order to secure reduced transportation rates.

Future Information.

Should anyone require any further information as to accommodation at Vancouver or Victoria, side trips, hunting, etc., they will kindly address the local secretary, Dr. W. D. Brydone Jack, Vancouver, B.C. For certificates and general information address the General Secretary.

Provisional List of Papers.

President's Address, Simon J. Tunstall, Vancouver.
Address in Surgery, Mr. Mayo Robson, England.
Address in Medicine, Dr. —— ——.
Address in Gynecology, Dr. E. C. Dudley, Chicago.
Paper, title to be announced, Dr. A. McPhedran, Toronto.
Paper, title to be announced, Dr. J. H. Elliott, Gravenhurst Ontario.
"Surgical Treatment of Trachoma," Dr. G. Stirling Ryerson, Toronto.
Paper, title to be announced, Dr. A. Armstrong, Arnprior, Ontario.
Paper, title to be announced, Dr. A. E. Garrow, Montreal.
"The Operative Treatment of Spina Bifida," Dr. E. R. Secord, Brantford, Ont.
"The Business Aspect of the Medical Profession," Dr. James E. Hanna, Ottawa, Ont.
Paper, title to be announced, Dr. D. J. Gibb Wishart, Toronto.
Paper, title to be announced, Dr. J. W. Stirling, Montreal.
Paper, title to be announced, Dr. B. E. McKenzie, Toronto.
"Hernia of Bladder Complicating Inguinal Hernia," Dr. Francis J. Shepherd, Montreal.
"Gastric Ulcer and Its Treatment," Dr. J. B. McConnell, Montreal.
"La Syphilis Canadienne et Diffirents Facteurs et Gravite." Dr. D. E. LeCavelier, Montreal.
"Case Reports," Dr. Robert H. Craig, Montreal.
Paper, title to be announced, Dr. James S. Edwards, Grand Rapids, Michigan.
Paper, title to be announced, Dr. Henry Howitt, Guelph, Ont.
"Chronic Cystitis," Dr. J. O. Camirand, Sherbrooke, Que.

"Iniencephalus, with a Report of Three Cases," Dr. Maud E. Abbott, and Dr. F. A. L. Lockhart, Montreal.

"Actinomycosis," Dr. James Bell, Montreal.

Paper, title to be announced, Dr. Ingersoll Olmsted, Hamilton, Ontario.

"Prostatectomy Under Local Anesthesia," Dr. H. H. Sinclair, Walkerton, Ont.

"High Frequency Currents in Functional Disease, more particularly Functional Neuroses," Dr. S. F. Wilson, Montreal.

"Therapeutic Hints from Bacteriology," Dr. G. R. Cruickshank, Windsor, Ont.

Paper, title to be announced, Dr. C. H. Mayo, Rochester, Minnesota.

In addition there will be a number of papers from Western men, whose names have not yet been received.

Any further particulars required will be gladly furnished by the General Secretary.

129 John Street, Toronto. GEORGE ELLIOTT.

INTERN STAFF, TORONTO HOSPITALS.

The staff for the Toronto General Hospital for 1904 and 1905 has been chosen, and the names appear in the following list:

House Staff.—A. B. Wright, Toronto; N. McLaurin, Toronto; W. A. McCauley, Warkworth; A. J. Fraleigh, Bloomfield; T. W. Rowntree, Thistletown; R. O. Fisher, Ashgrove; E. K. Cullen, Toronto; J. A. Oille, Sparta; G. E. Smith, Toronto; W. E. Gallie, Barrie; T. Hair, Lavender; G. E. Greenway, Little Britain; W. B. Hendry, Toronto; H. R. Elliott, New Sarum.

Externe House Staff.—A. W. Canfield Woodstock; E. A. McCullough, Thomasburg; A. C. C. Johnson, Toronto; W. S. Turnbull, Goderich; J. P. McKinnon, Toronto; W. S. Fawns, Udora.

It is the intention of the board to appoint two official anesthetists; also one medical and one surgical registrar, and one resident pathologist.

The board invites application for the above appointments to be sent to the Secretary, with qualifications.

Hospital for Sick Children Staff.—B. C. White, M. H. Embree, K. D. Panton, W. W. Wright.

St Michael's Hospital Staff.— P. J. Mugans, Hodgins, Chambers, E. De Haitre.

Western Hospital Staff.—F. J. Sheahan.

Grace Hospital Staff.—S. Ross, S. B. Walker.

Home for Incurables.—A. J. Jackson.

MEDICAL ITEMS.

The new wing of the Isolation Hospital, Toronto, was opened July 14th.

The position of House Surgeon in the Vancouver General Hospital will be vacant September 18th. Application may be made to the Secretary, Mr. William Skeane.

The degree of Doctor of Laws was conferred upon Dr. Trudeau, of tuberculosis fame, especially in connection with the Saranac Hospital, by McGill University at the June Convocation.

The Department of Medicine of the Congress of Arts and Sciences at St. Louis will be opened September 20th, under the chairmanship of Dr. William Osler. Two general addresses will be delivered by Dr. W. T. Councilman of Harvard Medical College and Dr. Frank Billings of Rush Medical College.

The Second Congress of French-speaking physicians was held in Laval University, Montreal, June 28th, under the presidency of Dr. Foucher. The attendance was large, and among those present were many physicians from sister societies. Professor Pozzi, of Paris, was present as the official delegate of France.

The last meeting of the American Medical Association, held in Atlantic City in June, under the presidency of Dr. Frank Billings, of Chicago, was a very successful one. A large number of Canadians were present and took part in the proceedings. The next meeting will be held in Portland, Oregon, under the presidency of Dr. Lewis S. McMurtry, of Louisville, Ky.

The American Medico-Physiological Association held its Sixtieth Annual Meeting in St. Louis in June. It is the oldest medical society in America, having been founded in the year 1844, as the Association of Medical Superintendents of American Institutions for the Insane. Dr. J. T. W. Burgess, of Montreal, was elected President for the ensuing year.

The Thirtieth Annual Session of the Mississippi Valley Medical Association will be held at Cincinnati, Ohio, October 11th, 12th, 13th, 1904, under the presidency of Dr. Hugh T. Patrick, of Chicago. The headquarters and meeting places will be at the Grand Hotel. The annual orations will be delivered by Dr. Wm. J. Mayo, of Rochester, Minn., in Surgery, and Dr. C. Travis Drennen, of Hot Springs, Ark., in Medicine. Request for places upon the program, or information in regard to the meeting, can be had by addressing the Secretary, Dr. Henry Enos Tuley, Louisville, Ky., or the Assistant Secretary, Dr. S. C. Stanton, Masonic Temple, Chicago, Ill. The usual railroad rates will be in effect.

Personals.

Dr. Geo. Bingham, of Toronto, is enjoying a holiday on the Georgian Bay.

The *Practitioner*, London, England, has removed its offices to 149 Strand, W.C.

Dr. W. P. Caven, of Toronto, sailed from Liverpool for Canada July 23rd.

Dr. Graham Chambers, of Toronto, sailed from Liverpool for Canada July 27th.

Dr. Price Brown is at present in Europe, and expects to return home early in September.

Dr. Thomas Millman, of Toronto, has returned from a trip through the Maritime Provinces.

Dr. J. S. A. Graham returned to Toronto July 9th. He expects to go back to England shortly.

Dr. Bertha Diamond, of Toronto, has removed from 23 Brunswick Avenue to 66 Brunswick Avenue.

Dr. A. Orr Hastings, of Toronto, sailed for England July 27th. He expects to return the first week in September.

Dr. Kennedy McIlwraith returned to Toronto July 26th, after spending three weeks on the lakes north of Peterborough.

Dr. W. T. McArthur, Tor. '95, F.R.C.S. Edin., of Los Angeles, Cal, was married on June 16th to Miss Mary Delia Smith, of York, Pa.

Dr. Burnham, 134 Bloor Street East, Toronto, is now in Great Britain, and expects to return to resume practice September 23rd.

Dr. Ingersoll Olmsted, of 16 Bay Street South, Hamilton, announces to the profession that in future he will confine his practice to surgery and consultations.

Dr. John T. Fotheringham, of Toronto, after a trip through Europe, going from Naples to Edinburgh, returned home July 10th. His friends were delighted to discover that he had recovered from the effects of his attack of septicemia.

Dr. Euston Sisley, after practising in the village of Maple for fourteen years, sold his residence and practice to Dr. Logan. Dr. Sisley was banqueted on Tuesday evening, June 28th, by the members of the Masonic Lodge, and presented with a Past Master's jewel. He is now taking a trip in the North-West Territories.

Dr. J. Arthur Sutherland of Dawson spent part of July in this city.

Dr. C. H. Britton of East York spent part of July in Muskoka.

Dr. J. A. Roberts has obtained his F.R.C.S. Eng. and returned to Toronto July 25th.

Dr. Edmund E. King of Toronto is spending the month of August at Hastings on the River Trent.

Dr. Logan of Maple, who was suffering from typhoid fever and was nursed in the Toronto General Hospital recovered, and left for his home July 31st.

Oxford University conferred the degree of D.S.C., *honoris causa*, upon Dr. William Osler, of Baltimore. Dr. Osler was described on presentation as being for many years the leading exponent of the principle that the art of medicine should be based on exact scientific knowledge. The University intended to confer the same degree on Dr. T. G. Roderick, Dean of McGill Medical Faculty, Montreal, but he was unable to leave Canada on account of the illness of a near relation.

Obituary.

JAMES H. McCULLOUGH, M.D.

Dr. James H. McCullough, formerly of Owen Sound, died at Battleford, July 10th of pneumonia.

JOHN ROBERT HAMILTON, M. D.

Dr. John Robert Hamilton, of Port Dover, died at Clinton, July 12th, aged 56.

ROLLO CAMPBELL, M.D.

Dr. Rollo Campbell, of Montreal, died of typhoid fever, May 30th. He had been for years connected with Bishop's College and the Western Hospital, and also certain military organizations. He was a son of Dr. Fred Campbell, Dean of Bishop's College.

Correspondence.

To the Editor of CANADIAN PRACTITIONER AND REVIEW :

DEAR SIR :—Replying to your request for an article on affairs medical in the Yukon, I take pleasure in submitting to you the following general observations :—

Each year since 1898 has seen a marked improvement of the public health in the Yukon. In the early days of the camp, two diseases seriously menaced the health of new-comers to the Territory—typhoid fever and scurvy. The former is lessening every year; the latter has practically disappeared. During the last six months of 1903, only three cases of typhoid fever were reported as originating in the City of Dawson, and only seven during the year ending June 30th, 1903. Although accurate reports were not kept, it is estimated there were several hundred in 1898. This large falling off in the number of cases of enteric fever has resulted from the adoption of the usual preventive measures—good drainage, complete removal of garbage and excreta from the city limits, and the securing of a pure water supply.

Reports from the creeks (where the miners live) and other outlying districts, however, do not show the same enviable record. During the last half of 1903, 20 cases of enteric fever were brought therefrom to Dawson for treatment, and 42 during the year ending June 30th, 1903. This somewhat unsatisfactory showing may be accounted for by opposite conditions from those which obtain in Dawson: lack of proper drainage, non-removal of excreta, and the consequent contamination in places of a rather poor water supply.

The disappearance of scurvy is due to the disappearance of the causes which produce it—poor food, badly cooked; dirty cabins, poorly lighted; bad ventilation; inattention to personal cleanliness; insufficient exercise; and nostalgia. With the advent of wives and children and accompanying home comforts, with the use of fresh meat, fruit and vegetables, scurvy has become practically a disease of the past.

There were two or three threatened epidemics of small-pox, but by the prompt action of the local authorities in placing the patients in an isolated hospital, the exposed persons under quarantine, and enforcing vaccination, the disease was on each occasion quickly stamped out, though at immense cost.

The first outbreak occurred in June, 1900. "The disease was brought in to Dawson (to quote from the M. H.O. at that time) by a man from Seattle arriving on a scow on the 10th of June, 1900. He was never isolated, being quite recovered before the police were able to locate him on the creeks. The disease

gradually spread and formed new foci by the men who had contracted a mild attack not reporting themselves and so infecting the neighbors in an hotel or bunk house. In this way small-pox spread from Dawson to Nome, Grand Forks, Discovery on Hunker, Bonanza, Cheechaco Hill, Eldorado, Gold Run and White Horse, until 42 cases were reported in all in the Yukon Territory. It was found necessary to petition the Yukon Council to extend the limits of the Dawson Health District, so as to be able to enforce the regulations respecting infectious diseases on the creeks. Later, when the disease had spread, an Ordinance was passed enforcing general compulsory vaccination and re-vaccination, unless in the case of those who could make a declaration to the effect that they were successfully vaccinated within the past seven years, or during their life had contracted small-pox. The small-pox scourge gradually disappeared with the advent of the winter snow and frost, so that at the end of the year the hospitals which were built for the accommodation of the small-pox patients at the Mouth of Bonanza, Grand Forks, and Gold Run were closed down, and the nurses and doctors were discharged.

Of the cases that developed nothing extraordinary requires mentioning: 27 or 64.29 per cent. were unvaccinated; 13 or 31 per cent. were vaccinated in childhood; two were not reported. No case had been previously re-vaccinated; 2 were successfully vaccinated 6 days after exposure, but this did not prevent the attack; 1 successful vaccination 6 days after the rash appeared; 6 of the patients had rather serious attacks, but owing to the good attention and accommodation provided all recovered.

Twelve thousand tubes of glycerinated vaccine were ordered and five public vaccinators were appointed. Schedules and vaccine were also forwarded by mail to the Medical Officers at the various Police Stations on the River.

The extreme cold we experienced in the Yukon has no effect on the virus of vaccine. Drawing our conclusion from this we have no reason to suppose that small-pox which is held in abeyance at present by the winter snow and frost will not break out worse than ever next spring. To prevent this all or nearly the whole of the population of the Yukon Territory are now being vaccinated, and next spring they will be well protected."

Perhaps in no young community in the world has there been so much money spent per capita, in the relief of sickness and indigency. From 1898 to June 30th, 1903, the Territorial Government spent $399,697.85 in the support of hospitals and the relief of poverty.

Dawson possesses two modern hospitals under good management. The attendant physicians and surgeons are skilful and

the trained nurses in charge thoroughly competent. Misses Smith, Moody and Graham, of the "Good Samaritan" staff, were trained in the Toronto General Hospital. Their work is highly praised by the Dawson doctors. Major operations of every description are performed here, and the results compare more than favourably with those obtained in the hospitals of the larger cities outside.

To give an idea of the classes of disease affecting the Yukoners, herewith is a list of the cases treated in the two Dawson Hospitals, for the year ending June 30th, 1903:—

DISEASE.	HOSPITAL.	
	No. at Good Samaritan.	No. at St. Marys'.
Alcholism	10	16
Accidents and Injuries	31	57
Affection of the Eye, Ear, and Throat	5	12
Child Birth	6	0
Disease of the Digestive Organs	11	7
Disease of the Circulatory System	8	7
Disease of the Respiratory System	21	32
Genito-Urinary Diseases, including Disease of the Kidney	14	73
Frost Bite	11	7
Erysipels	0	3
Scurvy	0	2
Rheumatism, Sciatica and Lumbago	7	28
Enteric Fever	19	30
Malaise	*	29
Other Cases	**40	21

* Not specified. ** Including Malaise.

From five years' observation I am convinced that the climate of the Territory is a healthful one. The elevation of Dawson above the sea is 1,200 feet, and that of the Dome 4,250 (the head of the principle creeks), between which elevations the majority of the population live. From the beginning of May to the end of August the Territory is bathed in continuous sunlight, either direct or reflected, the fine effect of which on the metaholic processes, and coincidently on the mental, the reader can surmise. The extra store of health acquired in the summer is not altogether lost in the dark days of winter, because the lack of sunlight is to quite an extent counterbalanced by the presence of a dry, cold, condensed atmosphere, which is exceedingly invigorating. Daylight, even in the shortest day, lasts from about 9 a.m. to 3 p.m.

As a rule at first only the vigorous entered into the camp, now people in all degrees of health (competent to perform the usual business of life) are making their home here. Children are particularly healthy, but the old and very debilitated do not stand the winters well.

In the springtime some of the miners show signs of anæmia. This is due not so much to the absence of sunlight as to the fact that they work so much underground, consume so much canned food, and live in cabins dimly lit and poorly ventilated.

I should, perhaps, qualify the statement in the first paragraph, because two other diseases have caused some apprehension in the Yukon—glanders and rabies.

During the year 1903, 48 horses suffering from glanders were destroyed by order of the veterinary inspector. Five others which were isolated died or were put to death by their owners. At the end of the year 22 horses were under isolation. Six stables were burned, and all the others disinfected. There are about 1,000 horses in the Territory. The mallein diagnostic test was tried; it gave satisfactory results.

Rabies.

I am indebted to Mr. E. Shoff, druggist (who has been doing considerable practice among dogs) for the following note on an epidemic of Rabies which occurred here commencing in the autumn of 1902.

"Noted suspicious case September 1st. Came from Nome, Alaska. Ordered confined. Broke loose next day. Never seen again.

September 15th, first case, unable to diagnose. On 18th saw second case with two M.D.'s. Died in two days. Cases then began to come every other day. Isolated all, keeping them under careful supervision.

From September 15th to October 1st, had probably 50 cases All isolated. Five of one litter all bitten at once. In this litter one case developed in 14 days, and the other four on successive days. All died within 60 hours of the onset of disease.

Noticed preponderance of the dumb form, ordinarily shewn in only 20 per cent. of cases affected. Many of the violent cases were killed, and so were not brought to my attention.

Native dogs of wolf strain developed symptoms early, 12-16 days. "Outside" dogs, 20 to 90 days. One case kept under observation for nine months did not shew symptoms until the end of that time.

Each of the above cases was under observation of from 3 to 5 physicians. Dr. Bourke, of Dawson, and Dr. McLeod, of Bonanza, were the only physicians who had seen the disease before. Each instantly made a diagnosis of Rabies.

During the prevalence of the disease about one dozen people were bitten by dogs—some, no doubt, by non-affected dogs. Heavy clothes and quick disinfection were responsible for non-infection from bites of infected dogs. One case developed in

the human subject. The case was treated by Dr. Clendennan, now of Edmonton.

The chief feature noticable in the dumb form was parlysis of the lower jaw, followed by complete paralysis of the hind quarters. Death in all cases ensued inside 60 hours from onset. Some cases showed features of the dumb form alternating with the violent form.

Post mortem shewed accumulation of foreign matter, slivers of wood, straw, etc., in the stomach. No examination made of nervous system.

The epidemic lasted 6 months. Some 250 dogs were effected."

I regret that my department work prevented me from making a closer study of the above diseases.

Yours faithfully,

J. N. E. BROWN.

DAWSON, Y. T., JUNE 21ST, 1904,

The Safety of Ethyl Chloride as an Anaesthetic.

This new agent whose virtues were quite evident, yet whose dangers were an unknown quantity through the relatively short period of its use up to 1900, by more recent figures promises to come into recognition as the safest of all. The mortality is now put down as one in from ten to fifteen thousand, although the very few cases of death have occurred in persons known to have been suffering from some grave cardiac or respiratory difficulty. —*Clinical Review.*

"By the way," said the gentlemanly-looking person in the black broadcloth suit, "if you mention my name in connection with the accident, you may say that 'Dr. Swankem was called, and the fractured arm was suitably bandaged,' or something to that effect. Please spell the name correctly. Here's my card." "Thanks," said the reporter, looking at the card. "You are next door to Dr. Rybold, I believe. Are you acquainted with him?" "No, sir," replied Dr. Swankem, stiffly. "We do not recognize Dr. Rybold as a member of the profession. He advertises."—*Chicago Tribune.*

The Canadian Practitioner and Review.

VOL. XXIX. TORONTO, SEPTEMBER, 1904. NO. 9.

Original Communications.

THE UNCERTAINTIES OF DIAGNOSIS AND THE NECESSITY OF EARLY AND VIGOROUS TREATMENT OF DIPHTHERIA.*

BY T. F. McMAHON, M.D.

The death rate from diphtheria in Ontario, as elsewhere, is altogether too high. In 1902, two thousand six hundred and ninety-six cases were reported, with a mortality of 15 per cent. In Toronto, 893 cases were reported with 115 deaths—a mortality of 13 per cent. Hamilton had 22 per cent. of deaths, Brantford, 16 per cent., and Ottawa, 12 per cent.

In Ontario the people are as a rule well fed and well housed, and the results ought to be much better than in the crowded, poverty-stricken centres of the older countries. In the pre-antitoxin days our percentage of mortality was much lower than in New York and the large cities of Europe, where the mortality averaged from 30 to 40 per cent. If their percentage mortality has been lowered from the above rate to 16 per cent. or less, surely ours in Ontario ought to show a corresponding decrease. But the report of the Ontario Board of Health shows that in 1902 it was 15 per cent.

I have questioned a large number of practitioners who use antitoxin faithfully and intelligently and they tell me that they now rarely lose a case of diphtheria, whereas in the pre-antitoxin days a very large percentage of their cases succumbed.

I am not going to enter into any argument to prove the efficiency of antitoxin. I take it that you will agree with me

* Read at Meeting of Ontario Medical Association,

that nearly every intelligent practitioner is as firmly convinced of the efficacy of antitoxin in diphtheria as of that of quinine in malaria or mercury in syphilis. I shall assume then that we are all believers. The object of my paper is to point out that many lives are lost that ought to be saved, and that as a result of faulty or tardy diagnosis and late and half-hearted treatment the death rate is double or treble what it ought to be. Let us examine our consciences and find wherein we have been remiss.

For many deaths we are not responsible. Those in charge of sick children often do not call in the physician until fatal poisoning has occurred. But there remain a large number of cases in which the physician is called in early and yet the undertaker follows in his wake. Let us examine the causes of his failure.

1. His attention is not specially directed to the throat and he fails to look at it, and diagnoses something else. By the time he recognizes his error the case is hopeless. The golden rule is "Always examine the throat of a sick child no matter what the symptoms are." The physician who fails to diagnose diphtheria because he did not look at the throat ought to be prosecuted for malpractice.

2. He examines the throat and thinks he has a case of tonsilitis or coryza or croup to deal with; or that, even if it is diphtheria, it is so mild that the old-fashioned remedies are sufficient for its cure.

3. He fails to follow up a suspicious case and finds too late that the patient is in a desperate condition.

4. He treats one amongst many children and fails to protect others exposed to contagion by a preventive injection.

5. He uses antitoxin but is half-hearted and does not use enough.

6. In a case of laryngeal diphtheria he uses antitoxin—perhaps in large doses—but fails to make early resort to accessory remedies such as calomel fumigation and intubation.

7. He makes an early diagnosis but puts off the injection of antitoxin until to-morrow or the day after.

For myself I must confess I have made nearly all these blunders, and have had occasion more than once to bitterly regret them. But it is now some five or six years since I have had a death from diphtheria in my practice. I well remember the last two I lost. In one I was called in to see a sick child; it had a discharge from the nose, but on carefully examining the throat I found no membrane. The parents told me they would let me know if the child was not doing well. Three days later I was called in and found the child dying from laryngeal and nasal diphtheria. In the other case I diagnosed

herpetic tonsillitis, because the spots were confined to the tonsils—small, white and discrete. Some four or five days later I was called in to find the child—who in the interim had been playing on the street, and doubtless spreading the disease among the neighbors—dying of laryngeal stenosis.

I had a couple of similar experiences in which the result was not so deplorable, but my culpability was as great.

Catastrophies like these caused me to ask myself—"Can they not be avoided?" "Is it possible to always diagnose diphtheria at the first visit?" "Can I afford to wait from one to three days for a bacteriological report?" "And can such report always be depended upon?" The conclusions I have arrived at are that such catastrophies almost always can be avoided; that it is often not possible to diagnose diphtheria at the first or any other visit without bacteriological examination, and I believe firmly that a bacteriological report is not always to be depended upon.

The Toronto Board of Health has an exceedingly efficient and painstaking bacteriologist—so has the Ontario Board of Health. And yet both will, I think, admit that they have made many negative reports where the subsequent course of events proved beyond any reasonable possibility of doubt that the swabs were taken from cases of diphtheria. I could quote some examples from my own practice, but the following three cases will serve to illustrate the difficulties.

1. Dr. Dwyer reports the case of a Toronto physician, swabs from whom were repeatedly examined by both Prof. Amyot and Prof. Shuttleworth, without any diphtheria bacilli being found. And yet severe—indeed almost fatal—paralysis, involving the arms, legs, throat, larynx and heart, supervened, and two others in the family developed the disease.

2. Dr. Nevitt reports the case of a young woman who had a violent sore throat—clinically, diphtheria. To prevent the spread of infection to children in the house he sent her to the Isolation Hospital. Repeated examination failed to reveal the presence of diphtheria bacilli, and yet she developed well-marked paralysis.

3. Dr. Uren reports the case of a girl aged twenty sent by him to the Isolation Hospital as a case of diphtheria. In four days she was sent home, as no diphtheria germs were found. But three weeks later extensive and serious paralysis supervened.

I need not multiply examples, for it is admitted that for some mysterious reason we may fail to get diphtheria germs from swabs taken from undoubted cases of diphthria.

Having arrived at the above conclusions, I asked myself, "What are you going to do about it?" And the answer was

evident—take no chances. In every case in which there is even a suspicion of diphtheria give antitoxin at once, and give it freely. Get a report in every doubtful case, but do not wait for the report but inject at once. As soon as bacteriological examination shows the presence of diphtheria bacillus give an injection to all the children of the household to prevent the spread of infection. Of course isolation and other methods of preventing the spread of infection must not be neglected, but neither must the preventive injection. Doubtless, if this practice is carried out, many unnecessary injections will be given. I have often injected antitoxin and found as a result of bacteriological examination that the case was not one of diphtheria. But what harm was done? I have never seen any bad results from the injection. In fact it has been my experience that the cases of membranous tonsillitis thus treated seemed to clear up more rapidly than those treated otherwise, and many physicians have expressed to me the same opinion.

There is but one serious objection—that of expense. But in my opinion prevention is cheaper as well as better than cure, and it would be cheaper for the municipality to supply physicians with preventive injections for the poor than to have the diphtheria hospitals crowded with patients kept for an average period of five weeks at an average expense of well on to a dollar a day.

There is nothing like a local example to illustrate a truth, and this is supplied in the experience of the Victoria Hospital for Sick Children with preventive injection, as related by Dr. Rudolf in a recent article in the *British Medical Journal*.

In 1901 about one hundred cases of diphtheria developed in the hospital, nearly all of which were treated with antitoxin. Of these only three died, and one of these was complicated with scarlet fever. Between January 1st and July 7th, 1902, forty-two cases (all showing the Klebs-Lœffler bacillus) developed. All, except a few of the mildest, were treated with antitoxin. Forty-one recovered, and the one that died developed uræmia due to kidney disease that pre-dated her admission to the hospital. For five years there had never been two successive weeks in which diphtheria had been completely absent from the hospital. Early in July, 1902, a determined effort was made to stamp out the disease by the injection of immunizing doses into all the patients. The result was most gratifying. For the five months reported not a single case of diphtheria occurred in the hospital, though the usual number of cases had been occurring elsewhere in Toronto. The germ was found present in the throats of many, but its hosts were immune and hence no diphtheria occurred.

The diagnosis of diphtheria is usually easy—often difficult—

and sometimes impossible. A patient may have a sore throat, with diphtheria bacilli present, and yet no membrane forms. If exposure to diphtheria is known to have occurred, it is better to regard the case as one of mild diphtheria and treat it accordingly.

There are certain mild exudative inflammations of the throat in which it is quite impossible to say whether we have diphtheria or pseudo-diphtheria to deal with. They look exactly alike, and the symptoms and duration are the same. Indeed, so much alike are they that if we were called in and told that one case was diphtheria and another pseudo-diphtheria we should be quite unable to say which one was the diphtheria. Should we wait for a bacteriological report and risk fatal poisoning and involvement of the larynx? No! We should inject antitoxin and make it a practical certainty that our patient will recover.

A fatal source of error is to confound catarrhal laryngitis or the old-fashioned inflammatory croup with diphtheria of the larynx. When there is even the smallest patch of membrane in the pharynx the diagnosis is clear, but unfortunately there are many cases of primary laryngeal diphtheria. We cannot be sure whether the laryngeal stenosis is inflammatory or membranous, and the only safe treatment is to inject antitoxin at once. Should subsequent events show the case to be one of diphtheria we have probably saved a life, and if not we have done no harm. I cannot be too emphatic on this point. Every case in which there is even a suspicion of laryngeal diphtheria should be promptly treated with antitoxin. Many years ago, in the pre-antitoxin days, I reported a series of cases treated with calomel fumigations with excellent results. Time and further experience have but confirmed the favorable opinion I then formed of this plan of of treatment.

For the past ten years I have treated all my cases of laryngeal diphtheria as follows:

1. Inject antitoxin, full doses.
2. Fume calomel under a tent (30 grs. an hour) until stenosis is relieved.
3. Intubate early if symptoms demand.

I regret that I have not a full record of my cases, but the results have been marvellously good. Every case I have seen and diagnosed early has recovered.

The early diagnosis from scarlet fever has in some instances puzzled me very much. The diseases often co-exist in the same patient, and in some malignant cases of scarlet fever there is a very imperfect developement of the rash—indeed the patient sometimes dies before the rash is due to appear. In three of my cases there was so much doubt that I injected

antitoxin. In each the rash came out on the second or third day, and diphtheria germs were found in cultures from the throat. Dr. Tweedie tells me that there is mixed infection in about 16% of the cases admitted to the Toronto Isolation Hospital.

The diagnosis from ordinary follicular tonsillitis is not always easy, nor is it indeed possible in some instances. In fact mild diphtheria quite frequently occurs with the semblance of ordinary follicular tonsillitis. My rule is to have swabs examined from every case, and, when in doubt, to inject antitoxin. Whether the exudate is removable or not influences my diagnosis but little. It can sometimes be readily removed in diphtheria, whilst on the other hand it is quite adherent in many cases of pseudo diphtheria.

A syphilitic throat sometimes closely resembles diphtheria, but with care there is little probability of error.

The last source of uncertainty in diagnosis I shall deal with is nasal diphtheria—especially the chronic form. An irritating discharge from the nose of a sick child should always excite suspicion and lead to careful enquiry even though no membrane be visible in the throat. I saw such a case in a child less than a week old who had an offensive discharge from the nose though nothing could be seen in the throat. How it contracted the disease I do not know, but bacteriological examination showed the presence of the bacillus, and if additional proof were wanting, it was supplied by the fact that the mother of the child contracted a severe form of the disease from it.

I was recently called at midnight to see a child that had been ill for three days, the parents supposing it had quinsy because it had an attack of that disease some little time before, and the symptoms were similar. I found the child desperately ill with naso pharyngeal diphtheria, but after an injection of 2000 units it made a prompt recovery: On looking for the source of contagion, I found that a young man in the house—a salesman in one of our large departmental stores—had an offensive, irritating discharge from the nose for about two months which resisted ordinary treatment. Bacteriological examination revealed the presence of diphtheria bacilli in the nasal secrition. In spite of vigorous treatment it was some six weeks before he was free from infection, although he felt well and ate his meals heartily throughout the whole three months.

One who recognizes the uncertainties and difficulties of diagnosis, and is prompt, bold and fearless in his treatment, will have a very low death rate indeed.

I believe that antitoxin is an absolutely certain specific remedy when given in sufficiently large doses early in the disease.

The most fatal form—laryngeal diphtheria—causes death either from stenosis, broncho-pneumonia, or sepsis, none of which will develop if a large dose of antitoxin is administered on the first day of the disease.

Children with enlarged tonsils and adenoids are in especial danger and require a specially large dose.

The same is true of nasal involvement. Intubation as a rule is not done early enough.

For the ordinary case of pharyngeal diphtheria without nasal or laryngeal involvement, I find a single dose of 1000 units, if given early, quite sufficient.

Dr. Louis Cairns published a most interesting paper in the *Lancet* of December 20th, 1902, on the intravenous injection of antitoxin. There are, he says, a certain number of malignant cases which show no improvement after the sub-cutaneous injection of even large doses (20,000 to 30,000 units) of antitoxin. He suggests two causes for its failure.

1. A selective influence on the part of the glands in filtering out the active constituents of antitoxin.

2. There is a definite chemical relation between toxin and antitoxin, and neutralization of the toxin goes on more quickly in concentrated solutions than in dilute ones.

He recommends an initial dose of from 20,000 to 30,000 units injected into the median-basilic vein, and the indications he gives for its employment in this way are:

1. Special malignancy of the disease.
2. Involvement of the lungs, especially if this complicates laryngeal involvement.
3. A moribund condition when first seen.
4. Marked toxic symptoms.

He reports fifty consecutive cases in the Belvidere Hospital, Glasgow. Of these he considered twenty severe enough to warrant intravenous injections. Of the fifty but three died. Thirty-one of the fifty cases showed laryngeal and seven nasal involvement. Fifteen were complicated with broncho-pneumonia. In seventeen cases it was found necessary to perform tracheotomy, and of these but one died.

The first case in which intravenous injection was tried was of special interest. A girl two years old was admitted pulseless, with cyanosed lips and cold extremities—the heart beating 185 to the minute, respirations 60, laryngeal obstruction almost complete. Tracheotomy was performed, but the lividity continued and was found to be due to broncho-pneumonia. The urine was loaded with albumen; 6,000 units of antitoxin were injected into the median-basilic vein. The patient continued desperately ill for two days, but on the third day mucus was

expectorated freely and she steadily improved and made a perfect recovery.

In another case broncho-pneumonia developed in spite of the sub-cutaneous injection of 18,000 units of antitoxin. Tracheotomy was then performed and 22,000 units of antitoxin were injected intravenously. There was immediate improvement and prompt recovery.

Gentlemen, when we see how much can be done for malignant cases, am I not justified in stating that our death rate is too high?

ON THE SURGICAL TREATMENT OF GASTRIC ULCER.

By FREDERICK W. MARLOW, M.D., F.R.C.S. (Eng.), Toronto, Ont.

The treatment of gastric ulcer is a subject deserving the most serious consideration, and as time advances it is becoming more and more an established fact that medicinal treatment must largely give way to surgical procedures in dealing fairly and adequately with this distressing condition.

The armamentaria of the physician have been severely taxed in this regard, but undoubtedly it has been his privilege, in a large proportion of such cases, to relieve symptoms and to avert dangerous complications, and so to prolong life by a choice of medicinal remedies and a careful regulation of the patient's diet and manner of living. But whereas in former years the surgeon was rarely called upon, save in the event of perforation occurring or other complication, such as sub-diaphragmatic abscess, it is now duly recognized that ulceration occurring in the walls of the stomach is amenable to surgical treatment in like manner to ulceration occurring in other accessible portions of the body.

A consideration of the inefficiency of medicinal treatment tends to show that this is attributable to various factors, and of these the most important is the impossibility of inducing in the stomach a state of rest, both physiological and mechanical, of a sufficient degree to allow definite healing to ensue, in the presence of those conditions almost always associated with gastric ulceration, namely, intractable hyperchlorhydria and stenosis of the pylorus, whether from muscular spasm or contraction of cicatricial tissue. Not even the most careful dieting can accomplish this, and on account of the anæmic condition of the majority of such patients no great amount of reliance can be placed upon rectal alimentation. Furthermore, these cases occur most frequently in females from fifteen to thirty or forty years of age, and undoubtedly a very large proportion of them are amongst the classes whom necessity bids to earn their own living and will not allow them to rest and practise careful regulation of their diet. But even amongst the well-to-do it is by no means uncommon, and to them it is anything but agreeable to maintain such fastidious care day after day in regard to their dietary, subsisting in a state of partial invalidism, and with a constant fear in their minds lest by some inadvertent step in this regard they may bring about a return of the symptoms or even render themselves liable to the occurrence of dreaded complications. Occurring in males it is most frequent between the ages of thirty and forty-five years, and to such patients a state of even partial or intermittent invalidism is most distressing.

But apart from the inefficiency of medicinal treatment, in the

majority of cases, while the ulcer remains there remains also the danger of hæmorrhage or of perforation. One author states that as many as 5 per cent. of all patients with gastric ulceration die of hæmorrhage. In a few cases a severe and even fatal hemorrhage may occur in the early stage of the disease, but the usual form is of slight magnitude; yet this is often so frequently repeated as to bring about a condition of profound anæmia. With regard to perforation, it is a most dangerous complication. Mr. Moynihan is quoted as saying, "The perforation of a gastric ulcer is one of the most serious and overwhelming catastrophies that can befall a human being," and were it not for perforation occurring in cases of acute gangrenous appendicitis, where the infectivity of any matter escaping into the peritoneal cavity is much more intense than that of stomach contents, such a statement would stand without modification. Undoubtedly in a great many cases actual perforation is averted or delayed by the occurrence of perigastric inflammation and adhesions, but such cannot prevent the spreading of the ulceration, and so perforation may occur subsequently. It is estimated that about 20 per cent. of gastric ulcers are situated in the anterior wall, and owing to the movement of the abdominal wall during respiration the formation of perigastric adhesions is uncommon and perforation is more likely to occur. That this is the case is borne out by the fact that about 80 per cent. of all perforations occur in the anterior wall. This is important in the operative treatment of such a complication, as it renders the site of the perforation more easily accessible.

The attitude of the profession to-day, as far as appendicitis is concerned, is one of early operative interference. In short, the dangers are recognized and respected, and so it is that much attention has been given to that least useful of all the abdominal viscera, and with so great reward. Considering this, does it not seem fit that surgeons should give heed to that important viscus, the stomach, and be ready when ulceration occurs within its walls, with all its attending discomforts and dangers, to afford relief by proper surgical procedures? The mortality of gastric ulcer is variously estimated at from $2\frac{1}{2}$ to 50 per cent. by different authors, and it is probable that about 25 per cent. is a fair average. At least 25 per cent. of cases can be permanently cured by proper surgical treatment, and futurity will undoubtedly increase this low estimate. Amongst additional indications for operation are the facts that from 3 to 5 per cent. of gastric carcinomata develop in the bases of chronic ulcers and that in about 20 per cent. of protracted cases the patients develop pulmonary tuberculosis with fatal result.

Briefly, the principle upon which the success of surgical

treatment depends is that if untoward lingering of the stomach contents is prevented by affording them free access into the intestine, in a vast majority of cases healing of the ulcer, or ulcers, as the case may be, takes place and symptoms disappear. To accomplish this purpose the operation of pyloroplasty has been performed, but without any marked degree of success, and this is most likely on account of the high situation of the pylorus not allowing of effective drainage, and the necessity of the passage of the food over the area most commonly the seat of ulceration. The operation of choice, and which has given such excellent results, is that of "posterior retro-colic gastro-jejunostomy," and during the performance of such, if the ulcer is easily accessible and its extent be not large, it may be resected with advantage though this is unnecessary. As a result of this procedure efficient drainage from the most dependent part of the stomach is provided, hyperchlorhydria disappears, spasm of the pylorus is overcome, and the ulcer undergoes rapid healing. Relapse seldom if ever takes place, and the subsequent occurrence of a peptic ulcer of the jejunum is infrequent, the great majority of reported cases having followed upon anterior ante-colic gastro-jejunostomy in which, owing to the awkward displacement of the jejunal loop and the drag upon it by the varying transverse colon, the drainage provided is defective and some hyperchlorhydria may persist.

At a meeting of the London Clinical Society (*Brit. Med. Jour.*, December 19th, 1903, page 1592) Mr Moynihan reported a series of one hundred cases of gastro-enterostomy for gastric ulcer with a death rate of only two. The operations were performed for intractable dyspepsia, dilated stomach, or profuse and recurrent hæmorrhage, and in ninety-two cases the results were very satisfactory. In the remaining six—method used not stated—some hyperchlorhydria persisted. Gastric tetany occurred in five cases. Mr. Mayo Robson, at a meeting of the Royal Medical and Chirurgical Society (*Brit. Med. Jour.*, April 16th, 1904, page 894) gave a list of fifteen reported cases of peptic ulcer of the jejunum occurring after gastro-enterostomy, and nearly all of them after the anterior operation. In his own cases one such ulcer occurred in twenty-nine cases of the anterior operation, whereas there were none in one hundred and twenty-eight cases in which he performed the posterior operation, that is, the operation of choice.

NOTE.—A valuable paper by Mr. Gilbert Barling on the subject of gastro-jejunostomy performed for various conditions and by various methods may be found in the *British Medical Journal*, May 7th, 1904, page 1064. Statistics referred to above are taken from the "System of Practical Surgery," E. v. Bergmann and W. T. Bull.

699 Spadina Ave.

THE FINANCIAL RESPONSIBILITY OF THE MEDICAL EXAMINER FOR LIFE INSURANCE.*

By BRUCE L. RIORDAN, M.D.C.M., Toronto, Ont.
Medical Examiner North American Life Assurance Co.

The position of a medical examiner for a life insurance company is a confidential one, and it is the duty of the examiner to discharge all his obligations in this respect to the company, carefully, fully, honestly, and to the best of his ability. While one examiner may be able to discharge these duties with more skill and competency than another, it is only where negligence can be shown that there is any liability on the examiner from a legal point of view. If the medical examiner discharges his duties to the best of his ability, and exercises due care and precaution, and discloses all information received from the applicant, and carefully records the answers as they are given to him, to the various questions asked, using his best judgment as to the information which he himself furnishes to the company, his duty is performed, and there is no financial liability upon him in any way to the company, or to the applicant.

It has been decided in the courts that the medical examiner is the agent of the company for recording the answers of the applicant.—Grattan *v.* Mutual Life Insurance Company, 80, N.Y., 281 ; 92, N.Y., 274. Therefore, it becomes very important that the medical examiner should be a man skilled in his profession, and of undoubted honesty and probity, as his report would be receivable as evidence against the company, unless in those cases where it could be shown by the company that he was guilty of fraud and deceit in withholding material facts, either of his own accord, or at the request of the applicant for insurance.

The medical examiner is not the agent of the applicant for insurance.—Hollman *v.* Life Insurance Company, 1, Woods, 674. The facts concealed or misrepresented by the examiner must be material to the contract. If he misrepresents or does not disclose the correct answers of the applicant, the company is responsible for any damage resulting from such irregularity of the examiner, and there is no doubt that in the event of such irregularity being proved, the examiner would be responsible for the financial loss or damage suffered by the company that may have resulted from such concealment or negligence.

There, however, have been contrary opinions held in cases

*Read at meeting of Ontario Medical Association.

where the form of application makes the examiner the agent of the applicant, *i.e.*, where the statements contained in the form are declared or warranted to be true, and in one case where such statement was false, and was written therein by the medical examiner of the company, the policy was declared void.—Sternaman *v.* Metropolitan Life, 63, N.Y., S., 674 (1900).

The relationship between the company and the medical examiner should be one of trust, and such position should be occupied by one who is recognized as being a man of undoubted honesty, skill and thoroughness in the discharge of his duties. In many cases the company may suffer considerable loss in case his obligations are not discharged properly. It has already been decided in the Provident Savings Life Assurance Society *v.* Rutlinger, 58, A.R.K., 528, and other cases, that where the medical examiner fills in false answers to questions, which are otherwise answered by the applicant, but without the applicant's knowledge, and then procures his acknowledgment to the application in writing to these questions (by applicant's signature), the company nevertheless is bound and cannot have any recourse under the contract against the insured, but in such case would have an action against the examiner for any damages it may suffer in connection with the contract.

The examiner who writes in false answers in his report may be liable for criminal prosecution, and in many of the states there are provisions imposing a penalty for any such breach: notably in the State of Michigan, he is liable to fine not exceeding $1,000, or imprisonment not exceeding three months, and shall be liable to the company in an action on the case for the full amount of any insurance obtained from such company by means of, or through, such false report.—(See Michigan Revised Statutes, Sec. 4,235.)

A medical examiner is recognized as the agent of the company only as to that part of the application which he is required to write (Leonard *v.* State Mutual Life Assurance Company, 31, *Law Insurance Journal*, page 584).

The financial responsibility of a life insurance examiner is, therefore, an important question with the company, and an important obligation is assumed by the medical man who examines applicants for insurance.

SOME OBSERVATIONS ON THE NURSING OF TYPHOID FEVER.

By ELIZABETH CAMPBELL GORDON,
Graduate Toronto General Hospital.

We are taught in our hospital training that a thorough knowledge of the nursing of typhoid fever and its accidents and complications covers almost the whole field of medical nursing. We have learned that it is primarily a disease of the intestines, accompanied by a great waste of muscular tissue and pronounced disturbance of the nervous system.

Absolute rest and cleanliness of body, an abundance of fresh air, carefully prepared diet, intelligent bathing and sponging, thoughtfulness in guarding against complications, capability and intelligence to act in an emergency, and the knowledge that the condition of the brain and nerve centres must be regarded as a part of the physical welfare of the patient are essential points in the nursing of typhoid patients.

We know that the basis of bodily cleanliness both in health and sickness, but particularly in sickness, is a thorough soap-and-water bath once in twenty-four hours. Let this, combined with an abundant supply of oxygen, be the foundation of hygienic treatment of a typhoid patient. Give the bath in the morning, when it is customary to change the bed and body clothing, thus giving the patient a fresh feeling throughout. Use good soap and plenty of water, with a little carbonate of soda, borax, or ammonia added. Go thoroughly over the whole body, paying particular attention to the groin, axilla, and feet. Soak the feet well, and rub in cocoa-butter when the skin tends to form in horny scales. Complete the bath by rubbing the patient from head to foot with equal parts of alcohol and water. Bear in mind that the cleansing of the skin induces perspiration, assists desquamation, keeps the pores open, and thus aids the absorption of oxygen as well as the escape of poisonous excretions. Let the skin, as well as the lungs, act as an oxygen medium. For this reason the clothing should be light, and a good supply of fresh air should be admitted during the day and night. Keep up the temperature of the room to 65° or 68° F., but do not exclude the external oxygen from the body by heavy clothing.

While it is usual to attend carefully to the mouth, the nose is generally neglected. Never allow the sordes to accumulate in the posterior nares. A typhoid frequently has a tendency to pick his nose; if it is kept in a proper state of cleanliness, this source of irritation is done away with. There is as much danger and discomfort in a neglected nose as in a neglected

mouth. The plugging of the nostril causes the patient to breathe entirely through the mouth, thus increasing the tendency to fissures of the tongue and lips. Sordes in the posterior nares may produce inflammation of the throat, which may extend to the Eustachian tubes, and the unclean nose may thus be the primary cause of otitis media. Or the sordes may be carried in particles by the breathing down into the bronchial tubes and lungs, inducing irritation of these organs, which may result in bronchitis, or pneumonia of more or less septic type.

The accumulation of sordes can be readily detected by the dry, whistling breathing. Take a pledget of absorbent cotton saturated with a five per cent. solution of boric acid; press the pledget well back into the nares; do this several times to soften the sordes, then use the dull end of a hair-pin or a dull curette to remove the mass. Spray the nostrils with listerine or Seiler's solution.

In cleansing either nose or mouth great care must be taken not to cause bleeding, for the abraded mucous membrane may be a source of reinfection. In this connection it might be well to mention that in addition to the usual hygiene of the mouth it should always be cleaned after taking milk, since milk forms a particularly favorable culture-medium for bacteria, which may then be carried to the stomach, exciting indigestion and flatulence. Thompson says that a tongue-bath may often be used to advantage—that is, to hold the mouth full of fluid for several minutes at a time, when such moisture is absorbed by the mucous membrane.

Attend to the nose and mouth carefully, and you will avoid one important source of complications and add greatly to the comfort of the patient.

For the tenacious mucus give a teaspoonful of equal parts of glycerine and lemon-juice, or a teaspoonful of glycerine and borax mixture. Any alkali assists in dissolving the mucus. The same relieves the disease from the hard, tenacious mucus in pneumonia.

Whatever means are employed for bringing down a temperature, let the patient regard the process with pleasure, and not with dread.

In private practice sponging and the pack are chiefly relied upon. Endeavor to be an artist in sponging. Know *why* you sponge. Remember that the primary object is not the sudden reduction of temperature, but the indirect control of it by the soothing of the nerve-centres. However limited the time for giving a sponge, never appear to be in a hurry. Have everything in readiness before removing the night-dress. Make long, firm, straight, downward strokes, paying particular attention to the large blood-vessels and to the spine. If you have half an

hour to spend on the sponge, put twenty minutes of the time on the inner sides of the limbs and down the back. Let your touch be gentle, firm, and soothing. Never allow your patient to shrink from the sponge. With the average man, and especially woman, there is an intense dislike to the shock of cold water. But if you wish to give a cold sponge and he shrinks at the first touch, take two basins, one tepid and the other cold; take the first stroke of tepid; that will prepare him for the second stroke of cold. The same principle applies to the wet pack. Apply the sheet wrung out of warm water and gradually reduce its temperature by sprinkling with cold water. Avoid all resistance. Do not allow your patient to use his strength when you can save it. Let the sponge or pack be a rest, not an exertion. If the delirium is violent and the nervous symptoms very marked, the hot sponge is at times more beneficial than the tepid or cold. Go over the whole body, keeping up the temperature of the water from a supply pitcher. Give the back the last attention, and before sponging it put on a slip night-dress opening down the back. Then take the long strokes down the spine as hot as the patient can bear, and in ten or fifteen minutes he may drop to sleep under your hands. Should you gain that object, gently arrange the night-dress and bed-clothing, and be careful not to disturb him. In general neuritis, which is not an uncommon complication, it may be necessary to suspend the sponging for a time, or the body may be gone over in *pats* rather than strokes, drying off in the same manner. When handling a limb in neuritis make pressure with the hand upward towards the trunk, as the downward traction stretches the inflamed nerve and causes more intense pain.

In delirium a feather pillow should not be used. If you cannot afford a water pillow, a three-quart rubber bottle filled one-third with tepid water and the air excluded, makes a very good substitute. A hair pillow is cooler than one made of feathers.

Never scold a typhoid patient. Speak firmly but gently; agree and sympathize with illusions rather than argue. Notice carefully if the patient is worrying and find out the cause. He may dislike a water pillow; if so, do not use it. A picture, a wall paper, or a curtain pattern may be bothering him and he cannot tell you, or it may be a colored screen, a colored pincushion, or a perforated cane chair that may be causing him annoyance; all bright colors and patterned things should be kept out of a typhoid's sight. You cannot nurse by rule in typhoid fever, as no two cases run exactly alike, and it develops more idiosyncrasies than any other disease.

When tympanites is present and applications are ordered great care should be exercised in their use. All applications,

hot or cold, should be made of a sufficient size to cover the crests of the ilia, as the bony prominences then help to bear the weight of the poultice, stupe, or ice-coil. In using an ice-coil place a piece of flannel between the coil and the skin, and keep the whole in place by a binder fastened down the centre with a perforation on either side to allow the ends of the coil through. The patient can then be turned from side to side, thus preventing hypostatic pneumonia, bed-sores, and all other inconveniences and dangers of the one position, without displacing the coil. Let your poultice be hot, light, well-beaten, and spread not more than one-half inch in thickness. That may also be kept in place with a binder. In using turpentine on either stupe or poultice it is better to lightly vaseline the whole surface of the part before making the first application. The skin is then much more tolerant of heat and does not blister or redden quickly. An ice-coil is much better for cold application than an ice-bag on account of its light weight and the little difficulty of keeping an even temperature. If an ice-bag is used, suspend it from a cradle and do not allow its full weight to rest on the abdomen in either tympanites or hemorrhage. To reduce tympanites an enema of soapy water, one pint; glycerine, four ounces; spirits of turpentine, one dram, given slowly and low down, produces increased peristaltic action and expulsion of feces and gas. Or the abdomen may be gently massaged twice a day, the course of the colon being followed from the right groin, with olive oil, one ounce; spirits of turpentine, one dram. The enema must not be "suddy," as too much soap causes irritation and tenesmus. Only add sufficient soap to make the water a milky color. If the distention is great, be careful to relieve the weight of the bedclothes by a cradle. One can be readily made from a barrel-hoop cut in two and crossed.

Hemorrhage is, with the exception of perforation, the most dangerous and the most alarming of the accidents of typhoid fever and calls for the greatest skill and good judgment on the part of the nurse. Here absolute physical rest must be rigidly enforced. Although it is the custom to raise the foot of the bed on the first indication of hemorrhage, I think it is a proceeding that may bear some discussion. We raise the foot of the bed in collapse, heart-failure, and syncope to stimulate the circulation by sending more blood to the heart and brain. But the intestinal organs are situated so near the centre of circulation that in strengthening the circulation the amount of blood at the point of hemorrhage may be increased instead of decreased. In my opinion it is better not to elevate the foot of the bed till the *pulse* gives the indication. Apply cold by means of the coil or ice-bag already referred to, and if ice be inserted into the rectum, make the pieces conical in shape by dipping in hot

water. Not even in private nursing should a bed be changed after hemorrhage without the sanction of the physician, and then the greatest care should be exercised. To keep a patient lying on his back in soiled linen for twenty-four hours may encourage hypostatic pneumonia and a bed-sore, but neither of these complications is necessarily fatal, while arterial hemorrhage is of the greatest possible danger. In changing the bed-linen have two assistants, and on no account turn the patient from side to side. Sew the edge of the clean draw-sheet to the edge of the soiled one. Arrange the clean sheet in the usual manner. Instruct one assistant to place hands beneath the buttocks, putting both hands in from one side, and the second assistant to place hands under the shoulders and back. Have the patient gently raised or eased off the bed while the clean draw-sheet is pulled through. In this way the patient is caused little disturbance. From the first appearance of hemorrhage it is well to be prepared for future escape by packing a good quantity of cotton wool and absorbent cotton in and about the buttocks, thus saving much soiling of the linen.

Sudden collapse or heart-failure in typhoid fever may be called an emergency, and as such the nurse must be prepared to meet it. The heart-action may not respond to the applied heat and elevation of the lower extremities. It is best to rely upon the hypodermic for heart and respiratory stimulants, and not to give them by the mouth, for the stomach refuses to absorb, and the effort of vomiting tends to waste the flickering strength of the patient. Strychnine and brandy may be called the standard heart stimulants, but from one-eighth of a grain of morphine and one hundred and fiftieth of a grain of atropine, given hypodermically, we get three results—we quiet the patient, slow the heart-action, and stimulate the vasomotor system. You will know in ten minutes' time if the result is satisfactory. There is less danger of a recurrence of the collapse if the patient is rallied gradually, so it is better to repeat whatever stimulants are employed rather than to give the larger dose at one time.

Phlebitis may occur in any stage of the disease. When a pain of a severe or aching character is complained of in the limbs, it is well to suspect phlebitis and act accordingly. Remember, there is as great a danger of dislodging the clot while it is forming as when it is already formed: under no circumstances, therefore, should you massage the part, but at once elevate the limb, apply dry or moist heat, and let the application be kept in position by a "many-tailed" bandage, not a roller, as the latter necessitates too much disturbance.

Of perforation little can be said, except to guard against this most fatal of all accidents of typhoid fever. Perhaps the best

safeguard is a strict attention to and careful watching of the diet.

IMPORTANCE OF DIET.

Osler says that pure milk should never be given. Always dilute with water, lime-water, or aerated water. The stools of a patient on strict milk diet should be examined with great care to see if the milk is entirely digested. When masses of curds are found in the stools, vary the diet with broth or beef-juice. If there is a tendency to constipation, do not give lime-water, but dilute the milk with Vichy water, soda water, or apollinaris.

In diarrhea omit aerated waters and give lime-water in the proportion of one part of lime-water to three of milk, but in this be guided by the character of the stools. When the diarrhea is profuse and the milk undigested, it is well to follow a regular table of diet. Peptonized milk and barley-water may be given in equal parts, one ounce of each every two hours, or oatmeal-water may be substituted for the barley-water and is frequently more grateful to the patient, although the quantity of nourishment must be thus restricted; water should be very freely given in order to compensate for the quantity of fluid withdrawn from the tissues by the profuse secretion of the bowels. Watch the diet carefully when there is an inclination to vomit. Give nourishment in small quantities, very hot or very cold, whichever is more agreeable. A teaspoonful of frozen peptonized milk or a teaspoonful of hot milk or coffee may remain on the stomach when all other diets are rejected. If the patient is in a condition to express a preference for any particular form of allowable diet, it is always well to make the experiment of humoring him, as frequently the food desired is what will be retained. If the vomiting be persistent, notice the condition of the eyes, the teeth, and the ears. Intolerance of light, where there is already defective vision, an ulcerated tooth, or an ear plugged with wax may cause reflex vomiting, or it may be caused by some nerve irritation which cannot be located.

In the first and second weeks of typhoid it may not be necessary to awaken a patient for nourishment, but in the third and fourth weeks, as the strength goes down, care must be taken to increase the quantity of nourishment, and judgment may be exercised in awakening him. If he is sleeping quietly and the pulse is regular and not varying in character, let him sleep on for some hours, giving a little more than the ordinary quantity of nourishment when he awakes. But if the pulse is very weak or shows irregularity, it might be well to arouse him for nourishment and stimulants. In arousing a patient it is perhaps better to do so by speaking rather than by placing

your hand upon him. The sound of a voice he is accustomed to is less apt to startle him than the touch of a hand. We cannot emphasize the fact too strongly that the diet of a typhoid patient should never be left within his reach. There is no greater waste of strength than allowing a patient to reach out and help himself.

To bring your patient successfully through the febrile stage of typhoid fever is but one-half the battle. We might almost call the long, slow convalescence a disease in itself. Generally speaking, in the febrile stage we have the accidents to guard against, and in the convalescent stage the complications. With the decline in temperature we get the heavy sweats and great muscular wasting. There is the sub-normal temperature, weak heart-action, and frequently an impaired mental condition. To prevent chill, to build up the tissues, and to give the patient cheerful hygienic surroundings should be our effort in convalescence. With the first sweat change the clothing from cotton to flannel ; protect the chest with a light layer of wool or fold of flannel. Sponging for the reduction of temperature is no longer a necessity, but there is the morbid condition of the skin to deal with, indicated by the profuse sweats and sometimes severe desquamation. During the sweat, dry the patient off under the clothing. When it is over, give him a quick, warm alcohol rub and put on dry, warm clothing. Give him the soap-and-water bath at night and a salt-and-water sponge in the morning. The salt has a general tonic effect, and on that account is better administered in the morning than at night. When severe desquamation is met with the salt and alcohol must be omitted, but cocoa-butter or olive oil may be well rubbed in at night over the whole body and a thorough bath given in the morning, using castile soap and a little borax in the water. By giving the skin careful hygienic treatment we tend to reduce the waste of tissue, assist desquamation, overcome the susceptibility to cold, and add greatly to the comfort of the patient, both physical and mental. To keep the convalescent free from excitement and give him cheerful surroundings will materially benefit his mental condition.

It is a wise plan to move the patient as soon as possible from the room in which he has spent the febrile stage of the disease, and when he is sufficiently strong to allow him to spend the morning in one room and the afternoon in another with a different exposure, getting the benefit of the sun in both.

In this paper I have not attempted to cover the whole field of nursing in typhoid, but only to touch upon some points which I have found by experience to be of much importance, and which are not always sufficiently brought out in our text-books or lectures.—Published also in the *American Journal of Nursing.*

ABSTRACTS OF PAPERS READ BEFORE THE ONTARIO MEDICAL ASSOCIATION JUNE 15th AND 16th.

Influence of Heredity Upon Life Expectancy.—H. R. Frank, Brantford.

Every unfolding organism eventually takes the form of the order from which it sprang. This principle is the keystone of life assurance: for it is the basis of all mortality tables. Of great importance in considering a risk are the habits and environments of the applicant, for next to heredity, these play the most important part towards longevity.

A man stands, not as the counterpart of his father or mother, but as the accumulated influences of generations, which may modify many hereditary taints. Nevertheless, a child physically like the mother, say, is prone to exhibit the same diseases as the mother.

There is often a reticence among the laity in admitting a tubercular taint. Relatives said to have died of pleurisy, pneumonia, bronchitis, etc., will be found, on closer examination, to have suffered from a cough for some months previously. There is no valid reason why a person cured of incipient phthisis should be absolutely refused a policy.

Insanity clings to succeeding generations with great tenacity. We frequently see in grandchildren outcroppings of epilepsy, hysteria and other nervous manifestations.

Epilepsy is undoubtedly a disease of marked hereditary tendency, the mother's influence in transmission being more potent than the father's.

When both father and mother have died of cancer, the applicant cannot be accepted: if only one parent he may, after his 35th year receive a policy.

Asthma, rheumatism, heart trouble, hay fever and diabetes, seem to have a direct hereditary influence on the risk.

Alcoholism and a tendency to suicide also "run in families"

Life Expectancy in Morbid Conditions of the Respiratory System.—Edward Ryan, Kingston.

Heredity plays a most important part in respiratory diseases. Parental intoxication is capable of affecting the germ cells, if not directly, certainly indirectly. The mortality in those of consumptive history is fully 10 per cent. greater than in those whose ancestory is non-tuberculous. But of late years it is recognized that a bad family history may be largely neutralized by a good personal record, the chief indication being the weight, those under the average being more liable to tuberculosis than those over weight. Persons with robust and well developed bodies have little susceptibility to consumption, and their fine physique may outweigh the unfavorable family record.

The applicant's occupation is of the utmost importance. Hoarseness must be regarded with suspicion. Asthmatics, with a hereditary tendency to tubercle, cannot be accepted, nor are they insurable over 45 years of age. Emphysema is also a bar to insurance, as well as repeated attacks of pneumonia. Pleurisy and bronchitis demand the greatest caution.

Life Expectancy in Morbid Conditions of the Genito-Urinary System.—F. LeM. GRASETT, Toronto.

About 11 per cent. of the total deaths in the Mutual Life of New York during the last fifty-six years were due to genito-urinary diseases, chiefly Bright's disease and prostatic disease. The influence of syphilis upon life assurance is not yet thoroughly understood. Some companies reject entirely a man who has suffered from this infection. Indeed medical authorities are still divided upon the subject of its curability, Récord, the great French authority, holding that "syphilis recognized is half cured," while Gowers thinks that "there is no evidence that the disease is or ever has been cured."

In the majority of cases the tertiary lesions appear within a few years, 50 per cent. in six years, and 75 per cent. in ten years. Therefore, if a syphilitic has had efficient treatment and a period of not less than five years has elapsed since all symptoms disappeared, he might be accepted, endowment assurance to be preferred. Taking all ages of those who have had syphilis, the mortality is one-third more than the average.

The Nervous System in Relation to Life Assurance.—H. C. SCADDING, Toronto.

In the Canada Life, during the last four years, 221 deaths in all (17 per cent. of the total) were from diseases of the nervous system. Of these apoplexy claimed 10 per cent. and cerebral softening 3 per cent.

Medical selection is usually felt for a period of five years, but apoplexy and allied affections give little evidence of being influenced by a doctor's examination, for nearly as many die of these diseases during the first year of admission as at any subsequent period. Perhaps the remote family history has a greater bearing on the outlook, as regards the nervous system, than it has upon any of the other important systems. With heredity as the primary predisposing factor to be considered in nervous diseases, alcohol is a good second, and syphilis next in order.

The reflexes are most important, while in doubtful cases the ophthalmoscope should be used. The presence of the arcus senilus should always be noted, though not *per se* of much prognostic value. Inquire closely into headaches and tremor, for they often show a morbid condition beneath.

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, H. J. HAMILTON, C. J. COPP AND F. A. CLARKSON.

Etiology of Cancer.

It is an excellent thing to sit down quietly once in a while and consider what progress we have made ourselves, and what has been added, during a given period, to the sum total of human knowledge. Perhaps no other subject has had, during the past year, as much hard work given to it as cancer and sarcoma. In laboratories lavishly endowed some of the brightest intellects in the world have been striving to find a cause for malignant growths. Their labor has not been as fruitful as we could wish, but still some of the outer ramparts have been stormed.

In the first place, it is the unanimous opinion of pathologists that such terms as "innocent" and "malignant" are entirely clinical. Microscopically it is not always possible to decide whether a tumor is benign or not. Indeed, Mr. Cathcart, of Edinburgh, and Dr. Cullen, of Baltimore, can show a series of tumors with an easy gradation from the typically innocent to the undoubtedly malignant. There is an essential similarity between benign tumors and cancer, the tendency to malignancy varying inversely with the degree of organization of the tissue.

The camp of investigators is still about evenly divided on the question of parasites. No sufficient proof has been forthcoming to convince pathologists that either protozva or the vegetable structures sometimes found in the cells of cancer are the ultimate cause of carcinoma.

The most important observations of the last year were those of Prof. Farmer, of Oxford, and his co-workers, who noted that cancer and sarmoca cells were like sexual cells in many ways. The normal cell of man contains 32 chromosomes, but there are other cells in the body which undergo a reduction mitosis, so that the chromosomes are reduced to 16. These are the reproductive or sexual elements, and are found, of course, only in the generative organs. The sexual cells can reproduce others containing 16 chromosomes, or they can join with another sexual cell of the opposite sex and by their union form a cell with 32 chromosomes—the ordinary tissue cell.

Prof. Farmer found that although many of the cells of a tumor were perfectly normal in their mitosis, there were other cells in every malignant growth which resembled the sexual

elements in having only 16 chromosomes. These have been called provisionally "gametoid." The inference is that the starting point consists in the development of these gametoid or sexual cells, normally found only in the reproductive tissues, and that, by fusion, they start into existence a newly fertilized race of cells. Whether this is caused by chemical changes or by a parasite is a riddle still to be solved.

Although this discovery does not seem very much, and is practically all that has been made during the past year, yet we may hope that it will prove the foundation stone of greater progress. F. A. C.

Falling of the Hair.

McDonnell (*Jour. Amer. Med.*) considers fully this important subject, which is usually abandoned to the charlatan. The most common cause of premature baldness is seborrhœa and the resulting eczema—parasitic in origin and therefore communicable. Literary people, exposed to artificial light, suffer from the heat rays, and those who work with electric burners seem to be more prone to baldness, perhaps on account of something analogous to the X-rays. Hair dyes and so-called tonics claim their share of falling hair. The practice of saturating the hair with water frequently is a damaging one. On the other hand many people do not cleanse the scalp often enough. Other reasons for baldness are stiff hats, heredity, improper hygiene, and certain febrile diseases, as typhoid, scarlet fever and pneumonia. It is a curious fact that consumptives usually have thick hair, and that the beard often develops early, giving rise to the saying, "Early development of the beard is early decay of the body."

The cure of alopecia lies in removing the cause. If this be dandruff, the scalp must be brushed clean, shampooed, and then rubbed with an ointment of salicylic acid (1) and sulphur ($2\frac{1}{2}$) in cold cream (25). To counterbalance hereditary predisposition, some of the ordinary rubefacients should be daily used, such as: Resorcin, 5 parts; Tr. capsici, 15 parts; olei ricini, 10 parts, and alcohol, 100 parts.

In fevers, McDonnell would not cut the hair of female patients. F. A. C.

Early Stages of Tubercle Bacillus.

Klebs, in *Die Kansale Therapie*, has made a remarkable contribution to the study of tuberculosis, which, if confirmed, will mean a revolution in our diagnosis of this disease. Very often, in microscopical examination of lymph glands, lesions from the skin, etc., we are absolutely certain of the tuberculous nature

of the tissue, but the bacillus cannot be found. Klebs insists that only the fully developed bacteria contain fat, and these alone are stained by the usual methods. All the younger forms escape the action of the dye. He claims to have succeeded in growing and in staining these previously unseen generations, and to have seen the droplets of fat gradually form. His researches will throw some light on the apparent sterility of a pleural effusion or the contents of a psoas abscess.

F. A. C.

SURGERY.

IN CHARGE OF EDMUND E. KING, GEORGE A. BINGHAM, C. B. SHUTTLEWORTH AND F. W. MARLOW.

Symposium on Syphilis.

A symposium on the subject of syphilis appeared in a special number of *The Practitioner*, (London) for July. Various well known authorities were invited to contribute articles dealing with various phases of the disease, with the result that much valuable information has been secured, especially with regard to some vexed points in the treatment of syphillis.

In view of the gravity of the disease, affecting as it does not only the individual but also the state, a brief review of the papers published in *The Practitioner* will be of interest.

Syphilis has, no doubt, existed from very early times, but much confusion existed among early writers, by whom individual diseases, such as soft chancre, gonorrhœa and syphilis were ill-distinguished. The separation of the group of venereal diseases is the work of quite modern observers. The teaching of Ricord, in France, placed syphilis on a scientific basis, and this knowledge was extended and diffused by Diday and Fournier and many other competent observers until the subject now occupies a large province of pathology. At the present day syphilis is a less fearful malady then it once was: no epidemics now occur and its more serious manifestations are comparatively seldom seen. This is due to two factors; in the first place, because the disease is better understood and earlier treatment is the rule; on the other hand, as the disease becomes more widely spread, the general resistance of the race is increased by an acquired immunity.

During the last few years a great advance has been made in our knowledge by the study of tertiary lesions, of latent syphilis, of vaccinal syphilis, of cerebral and spinal syphilis, of general paralysis and tabes, (the so-called parasyphilitic diseases). Fournier, chief and foremost of writers on syphilis,

proclaims the unity of general paralysis and tabes, of the dystrophies met with in late congenital syphilis in the first and second generations and of the parasyphilitic affections. Leredde believes that general paralysis and tabes are not only syphilitic in origin and nature, but that both are amenable to the same treatment. Hallopeau describes locomotor ataxia as a specific neoplastic affection of the centripetal nervous centres resulting in secondary degeneration and sclerosis of the sensory nerves.

It cannot be said that, up to the present time, we are certainly acquainted with the causative agent in syphilis. At different times, various micro-organisms have been claimed to be the exciting cause of the disease. Lustgarten's bacillus was looked upon as the most likely claimant for some time, but at the present day, however, is not believed to be the true causal agent. Jullien and De Lisle have found in the blood of syphilitics a polymorphic motile bacillus, agglutinated by the serum of syphilitic persons, but were unable to cultivate the bacillus outside the body. The fact that the lower animals have proved refactory to inoculation with syphilis has greatly retarded the investigation of the etiology of this disease. Martineau and Hammonic, in 1882, succeeded in inoculating an ape with syphilis, but, at that time, attracted little attention. Within the last two years, however, Roux and Metschnikoff have succeeded in producing an artificial immunity in apes by injecting an attenuated virus, produced by passage from one animal to the other. All efforts to produce an immunity, by injecting into man the serum of animals refractory to syphilis after inoculation with the human disease, have been unsuccessful.

Prof. F. C. Madden, F.R.C.S., Cairo, treats of syphilis as met with in Egypt. He points out that owing to the want of cleanliness and sanitation among the natives, and to a deep rooted objection, on religious grounds, to treatment by a medical man, and also to a blind faith in the sheik or holy-man to charm away disease, all combine to make syphilis in the Tropics a very formidable disease. The primary lesion, in the great majority of cases, owing to filth, becomes phagadenic and the secondary and tertiary lesions are severe, leading to great destruction of tissue, with consequent deformity. He says that tracheotomy is often imperative owing to deep ulceration of the pharynx extending to the larynx.

The treatment of syphilis by serum injection is dealt with in an article by J. Ernest Lane, F.R.C.S. Eng. He has carefully reviewed the literature of the subject, giving the results of experiments made by various observers during the last decade. It cannot be said that any degree of success has attended efforts to treat syphilis by means of a specific serum.

Animals which are immune to syphilis have been used in the hope their blood might contain substances antagonistic to the syphilitic virus; or the serum of animals first inoculated from syphilitic persons has been administered; again, serum from convalescents from syphilis has been injected into those suffering from the acute symptoms, but with indifferent results.

Two factors have militated against the production of a curative serum. The lower animals are naturally immune to lues, and further the organism causing syphilis is not definitely known. All efforts to cultivate the reputed etiological microorganism of syphilis have proved futile and the production of a potent solution of its toxines which is necessary for the manufacture of an antitoxic serum is therefore, so far, impossible. Hence, on theoretical grounds the prospects of a successful serum treatment of syphilis do not seem hopeful. Up to the present time, antibacterial serum have proved unsatisfactory and the use of antitoxic serums, excepting perhaps the antidiphtheritic serum, have been very disappointing. It is to be hoped that since it is an established fact that some of the anthropoids are subject to syphilitic infection, that we shall soon be provided with a curative serum for this disease as the results of experiments upon them.

It is conceded that there is one specific drug for the treatment of syphilis and that is mercury. Iodide of potash is most useful in resolving the newly formed tissue in the late lesions. Mercury may be given either by the mouth, the skin, or hypodermically. Each method has its advantages and its disadvantages. In English speaking countries, the drug is usually given by the mouth, either as hydrarg. cum creta, the perchloride, or the iodide. Dr. G. F. Still, F.R.C.P., in his article on syphilis in children, gives preference to the administration by the mouth in the hereditary form of the disease. The oral method has the drawback of being slower than other methods of setting up gastric or intestinal irratation and of the drug passing through the intestinal canal unabsorbed. The convenience of the method, especially in the form of pills, which may be easily carried about and taken regularly without exciting attention, is evident. In Europe, the administration of mercury by the mouth is considered somewhat antiquated, now that more effectual methods are known. The treatment by inunction, although a somewhat dirty method, is very efficacious. The mercury enters the general circulation much more rapidly than when given by the mouth, a point of importance in many cases, The inunction method is strongly recommended by Dr. Touton, of Wiesbaden, who contributes a paper on the treatment of syphilis at that well known watering-place. Another excellent article by Dr. Lievan, of Aix-la-Chapelle,

advocates similar methods, of course combined with a "course" of waters at the spa.

The hypodermic method of treatment is syphilis has been treated by Dr. Louis Wickham (Lock Hospital, Paris). He points out that in the treatment of syphilis, the stomach should be spared as much as possible from the burden of drugs, in order to maintain that high degree of nutrition which is essential to a cure. It is unfortunate that no method has yet been devised for the administration of iodide of potash in sufficient doses by any route other than the stomach. He therefore insists on keeping the stomach in good condition ready to deal with the iodide in case of emergency. Dr. Wickham claims for the hypodermic method the following advantages: That it spares the stomach, it allows the more direct penetration of the mercury into the blood stream, it completely utilizes the dose administered and the more exact dosage rendered possible. He logically says that the dose must be proportionate to the resistance of the patient, a quantity sufficient in one case may be quite insufficient in another. He insists that the dosage should be carried to the highest point of toleration, usually evidenced by a reaction in the form of malaise and slight fever. Attention is drawn to the fact that in using any particular salt of mercury, the percentage quantity of the metal present should be considered in dosage. A graduated syringe made entirely of glass, is used, and having a platino-iridium needle, which may be sterilized by being made red hot in the flame of a spirit lamp. Hermetically sealed glass containers, (Jaboin's bulbs) are employed for the solutions to be injected. A daily injection is made preferably deep into the gluteal muscles, rather than superficially, being less irritating to the tissues, and so not so liable to cause abscess formation. The compounds of mercury recommended are the biniodide, the benzoate, and the cyanede, all rendered soluble in water by the addition to them of neutral salts. Insoluble salts of mercury are used where the patient cannot be seen every day. Either calomel, suspended in fluid vaseline, or "Grey Oil" (a mixture of mercury in sterilized lanoline and fluid vaseline) is recommended. Injections are made only every 6 or 7 days, with the assumption that gradual absorption will take place. There are drawbacks to this method, as the too rapid absorption of the drug, or should there be an intolerance on the part of the patient, it would be impossible to remove the metal after it was once introduced.

Sir Alfred Cooper, F.R.C.S. speaks highly of the Zittman Treatment in tertiary lesions which resist the usual remedies. These so-called "malignant" cases of syphilis, fortunately but

rarely seen, seem to be made worse by mercury and the iodides. which seem to increase the local reaction in gummata and ulcerative lesions and so aggravate the destruction of tissue. Here the Zittman treatment has proved remarkably successful in the hands of Mr. Cooper. The principle of the treatment is to eliminate the poison by diaphoresis and purgation, due attention being paid to the diet. The patient is kept in bed except for one hour daily, in a room the temperature of which is maintained at 80 degrees F., and large quantities of purgative decoctions are given hourly during the day time. The treatment lasts 14 days, but being omitted on the fifth and tenth days. Marvellous results are claimed in the treatment of refractory tertiary lesions.

A valuable article on Syphilitic Disease of the Brain is contributed by Dr. F. W. Mott, F.R.C.P. He regards syphilis as the most important cause of organic brain disease in adults, and the most weighty extrinsic factor in the production of insanity. The disease may manifest itself in two ways: first, it may produce lesions either of the membranes or blood vessels, or of both, giving rise to degenerative changes; also to the formation of neoplastic growths (gummata) with secondary softening. Secondly by lowering the specific vital energy of the cells of the body or of praticular organs, syphilis may give rise to the "parasyphilitic" affections, which include malformations, arrest of developement, and cachexia in early years, and such affections as tabes, dorsalis and general paralysis in later life. Considerable discussion has taken place as to whether a mild or severe attack of syphilis is most often followed by cerebral lesions. Dr. Mott regards those suffering from a mild attack of syphilis, on account of inadequate treatment, as most likely to have cerebral complications later. Of all predisposing causes of syphilitic brain disease, he claims alcoholic excess is the most important, whilst excesses of any kind, including mental strain, are also most important factors. The subject of brain syphilis is considered under the following headings:—basic meningitis, meningitis of the convexity, cerebro-spinal syphilis, arteritis and neoplastic formations, and encephalitis. The pathology, symptoms, diagnosis and prognosis of each of these is discussed in a worthy manner by this well known authority. Dr Mott recommends the combination of mercury with the iodide of potash in cerebral syphilis, but advocates inunction or injection of mercury when it is necessary to bring the patient rapidly under the influence of anti-syphilitic remedies.

The ocular manifestations of syphilis and their treatment is ably discussed by Walter H. Jessop, F.R.C.S. He treats of the various lesions of the eyes occuring in syphilis, and gives

specific directions for the treatment of each affection. He finds the inunction method of administering mercury to be the most satisfactory one.

An illustrated paper by St. Clair Thomson, F.R.C.S. reviews the subject of syphilis as met with in the upper air passages. The diagnosis and detailed treatment of the various lesions are thoroughly taken up. Mr. Thomson considers inunction the best method of treatment and for the local effect on sloughing or gangrenous ulceration of the throat, the inhalation of calomel fumes through a glass tube in which the drug is volatilized by a spirit lamp.

The July number of *The Practitioner*, from which the above abstracts were made, contains an immense amount of good material and the publishers are to be congratulated on this last addition to their series of special numbers. C. B. S.

OPHTHALMOLOGY AND OTOLOGY.

IN CHARGE OF J. T. DUNCAN, M.B., M.D., C.M.

Acute Otitis Media.

In the *Northwestern Lancet* of April 15, 1904, Parsons gives the following advice as to the treatment of this condition:

To prevent the occurrence of middle-ear troubles such nasal and pharyngeal diseases as will render liable infection of the Eustachian tube and tympanum must be attended to.

The dismissing of cases of catarrh with the statement that "everybody has it and there isn't very much to be done with it anyway," is responsible for most of the middle-ear trouble occurring after the first few years of infancy.

Hypertrophy, and degenerate conditions of the pharyngeal lymphoid structures, shou'd receive proper treatment. If we remove the adenoids and degenerated tonsils, we have removed a great predisposing cause. If we relieve the catarrhal conditions of the nose and nasopharynx, and keep the mucous surface clean with alkaline antiseptic douches, we will have little infectious material enter the Eustachian tube. Douching must be done carefully, and blowing the nose should be done with caution. Digging away at the external canal to remove cerumen should be prohibited. (This last remark might be listened to with advantage by some physicians.)

A diagnosis of otitis media having been made, our treatment should be governed by the pathological conditions present. A free movement of the bowels is desirable. In the earliest stages congestion may be lessened, and secretion diminished, by the

administration of 1-500 grain each of atropine and aconitine, given hourly until their physiological effect has been produced, and thereafter as often as may be necessary to keep up the effect as long as desired. Chloroform vapor may be poured into the ear for the relief of the pain. Application of a 10 per cent. solution of cocaine and adrenalin solution to the drumhead is often efficacious; also dry heat from a hot salt-bag. Inflation of the tympanum with the vapor of menthol and camphor helps the pain both by the local action of the drugs and the equalization of the air-pressure. The drumhead should be inspected to note if there is any accumulation of secretions behind it. If this is the case, or if the drumhead is sclerotic, and other efforts to relieve the pain have failed, free incision of the membrane is demanded. This should be done under strict antiseptic precautions both as to instruments and field of operations. If no secretion is found, the wound is left to heal, which it does readily. If secretion is present, a free enlargement of the puncture is to be made, so as to permit free drainage. If there is no pus present, the ear is to be packed loosely with sterile gauze, and a sterile dressing put on the outside. This is to be continued until healing has taken place. If pus is present, it must be treated like pus in any other part of the body. Free drainage is imperative.

Free irrigation is to be carried out. This is, of course, to be done very gently. A 1:1000 formalin or bichloride solution, used until the return flow is clean, and followed by instillation of 10 per cent. to 20 per cent. argyrol solution, has given the best results in the author's hands. The argyrol is allowed to run into the tympanum through the perforation by inclining the head, and the external canal is then packed, inserting a small wick through the opening if possible. If the secretions gum up the canal, they are easily removed by the application of peroxide. The discharge must be attended to carefully until it has ceased. To neglect it and allow it to become chronic would be a serious mistake. J. T. D.

Editorials.

WILLIAM OSLER.

In the fall of 1868 four bright boys commenced to study medicine in the Toronto School of Medicine in affiliation with the University of Toronto—Dick Zimmerman, Fred. Wright, Fred. Grasett, and Willie Osler. Of these Zimmerman and Wright are dead long since. Grasett and Osler left the University of Toronto at the end of their second year; the former going to Edinburgh, the latter to McGill University, Montreal. Grasett, after completing his course in Edinburgh, returned to Toronto, where he soon became a successful surgeon and teacher in surgery, and is now one of the senior professors of surgery in the University of Toronto.

Osler after graduating at McGill went abroad for a time, and was engaged in post-graduate work chiefly in London, Berlin, and Vienna. In 1874 he commenced his duties as Professor of Physiology in McGill University and Pathologist to the Montreal General Hospital. For twelve long years he worked early and late in the lecture room, the laboratory, the post-mortem room, and the hospital ward. He became first an expert physiologist, then an expert pathologist, then an expert physiologist, pathologist, chinician and physician (combined). His friends watched his career with great interest, and with much satisfaction mingled with some dissatisfaction. It was all very well for Osler to get a sort of distinction, but there was "no money in it." His confreres were getting rich, he was keeping poor. At the same time he was doing good work for McGill, which fortunately the friends of the latter appreciated. But even McGill didn't know what she was losing until Osler had gone.

In 1884 he went to Philadelphia and entered on his duties as Professor of Clinical Medicine in the University of Pennsylvania. In 1889 he became Professor of Medicine and Clinical Medicine in Johns Hopkins Hospital and University. In this year of grace 1904, he has become, with the approval of His Majesty King Edward, Regius Professor of Medicine in the

University of Oxford. We have referred to some of the mile-posts in Osler's wonderfully successful career. Many other honors have been literally heaped upon him by the way, all of which his frinds think are well deserved. In addition there is much which cannot be written with such a pen as the writer now holds. We can briefly but truly say, however, that he is one of those good souls whom to know is to love.

ONTARIO MEDICAL REGISTER.

We have received a copy of the new "Ontario Medical Register," which was prepared by Dr. R. A. Pyne last winter, its publication being delayed a few months on account of the great fire of April last when much of the printer's "copy" was destroyed. In the former edition of the "Register," which was published in 1898, there were 3,510 members enrolled. In the present edition there are 3,401 names, showing a decrease of 109.

There is one arithmetical statement in connection with these figures that is somewhat difficult to understand, as follows:

Names on list in last edition of "Register"	3,510
Increase since October, 1898, deducting deaths.	211
Names in present edition	3,401

Why 3,510 with a net increase of 211 should give a total of 3,401 is not explained.

It appears to be definitely known that 505 members of the College practise outside Ontario. It is also stated that the present residence of 444 members is unknown. Probably a large proportion of these are dead, while a number are not now practising medicine. When we deduct the number of those practising outside Ontario and those whose residence is unknown, we should get the number who are now resident in the Province, *i.e.*, 2,452. We are told without any explanation as to where the figures come from, that there are now 2,400 legally qualified practitioners practising in Ontario, which, according to the last census giving the population of the Province as 2,206,000 would give one physician to every 919 of the inhabitants.

THE MEETING OF THE BRITISH MEDICAL ASSOCIATION.

This great Association has now a membership of over 19,000. The recent meeting in Oxford was quite up to the average in all respects. There were about 1,600 members present and in addition about 1,000 guests, including members of the families of the members. The authorities of the University placed their buildings at the disposal of the Association, and both members and guests were provided for without any crowding. In addition to the welcome extended by the University the City of Oxford, through the mayor and corporation, entertained the members at a conversazione, and in other ways displayed its interest in the meeting. We are told that the amount of work done in the various sections was unusually large and frequent extra sessions were held. The financial position of the Association is satisfactory, the excess of income over expenditure for 1903 being about $27,000.

A deputation consisting of Drs. Cameron, MacKenzie and Burnham, of Toronto, and Dr. Courtney, of Ottawa, appeared before the council at its first meeting, and invited the Association to meet in Toronto in 1906, or at some early convenient date. This invitation was favorably entertained, and it was determined to confer further with the deputation from Canada as to the most suitable date. The Council at its next meeting made the formal announcement that it would recommend the Association to accept the invitation to hold its annual meeting of 1906 in Toronto.

THE CALGARY SANATORIUM FOR CONSUMPTIVES.

We are much interested in the establishment of a sanatorium for the treatment of tuberculosis in Calgary, and hope in the interests of suffering humanity, that the efforts of Dr. Wills will be eminently successful. We know that in the past many consumptives who have moved from Ontario to Manitoba and the North-West Territories have been cured. We presume that it is now generally acknowledged that tuberculosis is a curable disease. We also know that in many cases unfortu-

nately the consumptives who have gone from the East to the West have rapidly grown worse until death came. Even conscientious physicians sometimes send away patients with advanced tuberculosis to die among strangers when they should allow them to die at home.

We are learning much about tuberculosis apart from the fact that it is sometimes curable. We appreciate the importance of the early recognition of tuberculosis. We believe that the best results are obtained in tubercular cases when the patients are treated in well conducted sanatoria where they can be kept under proper discipline and thorough supervision by expert physicians.

The exact virtues of different atmospheres are unknown, but there is no doubt that the high altitude will suit some patients while the low is better for others. The bracing dry inland air is sometimes beneficial, while the humid sea air is sometimes equally or more beneficial; much depending on the idiosyncrasies of the patients. We desire to obtain still more knowledge. We wish to ascertain comparative results in carefully conducted sanitoria, for instance in Muskoka, on the shores of Lake Superior, on the plains of the North-West, in Calgary, Banff, Kamloops and other portions of the Rockies. We in the East will look forward to the results of Dr. Wills and others in the West with increasing interest.

In presenting Dr. Wm. Osler for the degree of D. Sc. honoris causâ, at Oxford University, on July 27, Prof. Love said (in Latin):

"Among those who apply the results of modern science to the investigation of the causes and the cure of diseases, few have attained greater distinction than William Osler. By his professional teaching, first in Montreal, and afterwards in Baltimore, by his writings, which deal partly with questions of abstract science and partly with questions concerning the practice of medicine, by his skill as a physician, he has been for many years a leading exponent of the principle that the art of medicine should be based upon the most exact scientific knowledge of the day. For his work in exemplifying this principle, as well as for the merit of his contributions to science, he was

elected a Fellow of the Royal Society. In him also we welcome a representative of one of those daughter States which are the pride of the Mother Country—the Dominion of Canada—and also of that great Republic of the West whose people, bound to us by the closest ties of kinship, are also among our best friends."

Dr. T. G. Roddick, of Montreal, on whom an honorary degree was also to have been conferred, was unavoidably prevented from being present.

MEDICAL COLLEGES OF CANADA.

The Educational number of the *Journal of the American Medical Association* give statistics as to Medical Colleges in North America. The following particulars are given as to Canada. The course in each College includes four sessions, but the Toronto Medical Faculty now has a fifth year course in accordance with the requirements of the Ontario Medical College, and the McGill Faculty has a post-graduate course.

The Dominion of Canada, with a population of 5,335,055 (1900) contains nine medical colleges. Of these, four are situated in Ontario, four in the province of Quebec, two in Nova Scotia, and one in Manitoba.

London, Ontario.

Medical Department of Western University.—This school matriculates students in accordance with the requirements of the Provincial Council, and has a course of four years. Victoria Hospital and St. Joseph's Hospital supply the clinical advantages. The fees are about $90 per year and $25 extra for graduation, with $5 for each examination each year. This school has over 100 students and from 10 to 20 graduates annually. The next session runs from September to May.

Kingston, Ontario.

Queen's University.—This school had 216 students registered in its medical department during 1903-4, and graduated 42. The faculty numbers 25.

Toronto, Ontario.

University of Toronto, Medical Faculty.—All the lectures and demonstrations are given in the laboratories and lecture rooms of the University; more than two-thirds of the instruc-

tion in the third and fourth years is given in the wards and in the pathological and clinical laboratories. The faculty numbers 88. Clinical instruction is given in the Toronto General Hospital, Mercer Eye and Ear Infirmary, Burnside Lying-in Hospital, Hospital for Sick Children, and St. Michael's Hospital. Fees are: Registration (payable once), $5; each of the first four years, $100; fifth year, $50; for the degree M.B. and M.D., each $20. Number of students registered last session, 721; graduates, 96. The next session will commence Oct. 1, 1904. Trinity Medical College of Toronto was amalgamated with the university in 1903.

Ontario Medical College for Women.—This college is not empowered to grant degrees, but it qualifies students fully to take the examination in any university. The faculty numbers 35. The fee for each year is $110, exclusive of hospital and university fees. The number of undergraduates, 1903-04, was 31; graduates, 4. Twenty-first session will open Oct. 1, 1904, and continue for eight months.

Montreal, Quebec.

McGill University, Faculty of Medicine.—This college has a course of four years of nine months each. The faculty numbers 24 professors and 66 assistants, total 90. The total fees for the course are $500. Clinical instruction is given in the Montreal General Hospital, Royal Victoria Hospital, and Montreal Maternity Hospital. Students registered during session 1903-4, 415; graduates in June, 1904, 86. The seventy-third session will commence Sept. 20, 1904.

University of Bishop's College, Faculty of Medicine.—The course leading to the degree of C.M., M.D, extends over four years of nine months each. The annual fees are $100, which include all practical classes and material for the same. Clinical facilities are offered in the Montreal General Hospital, the Royal Victoria Hospital, the Western Hospital, the Hotel Dieu, and the Woman's Hospital. During the last session the students numbered 70; graduates, 10. The next session will open Sept. 15, 1904.

Quebec, P. Q.

University Laval, Faculte de Medicine.—This is the Quebec branch of Laval University medical faculty. The course consists of four years. The fees for the entire course are from $200 to $300, according to preliminary qualifications. The matriculants are about 100 annually, and the graduates about 20.

Halifax, Nova Scotia.

Faculty of Medicine of Dalhousie University.—The course consists of four years of eight months each, and leads to the final M.D. and C.M. examination. During last session (1903-4) there were 58 students of whom 17 graduated. The faculty numbers 23, and the next session is from September to April (inclusive).

Winnipeg, Manitoba.

Manitoba Medical College.—This is in affiliation with the University of Manitoba, and has a faculty of 21. Winnipeg General Hospital and St. Boniface Hospital supply clinical material. The fees are $400 for the course of four years. There were 108 students in 1903-4, and 15 graduates.

TORONTO GENERAL HOSPITAL.

Toronto General Hospital statistics for July and August show:

	July	August
Patients in hospital	263	220
Patients admitted	230	250
Births	18	15
Total under treatment	511	485
Discharged	273	243
Died		16
Patients remaining in hospital (not including infants)	220	211
Accident cases	220	201

During August 247 accident cases received quick aid and treatment at the Emergency Branch of the Toronto General Hospital, 105 Bay Street, and 97 of the 259 patients discharged had undergone surgical operations, 12 of whom were operated upon for appendicitis.

Very few patients have been admitted suffering from typhoid, and the cases which are under treatment are of a very mild form and convalescing rapidly.

Deaths in August, 1904: Diarrhea, infant, 1; typhoid fever, 2; lock-jaw, 1: lead poison, 1; heart disease, 2; blood poison (girl), 1; cancer, 2; pneumonia, 1; peritonitis, 1; tuberculosis, 3; senile decay, 1.—Total, 16.

Personals.

Dr. W. S. Dakin (Tor. '02) is practising in Galt.

Dr. Fred. Fyle is spending the summer in Muskoka.

Dr. J. E. Davey (Tor. '02) is practising in Hamilton.

Dr. Herbert Hamilton goes to England in September.

Dr. J. Orlando Orr will go to England in November.

Dr. H. N. McCordie (Tor. '02) is practising in Forest.

Dr. T. B. Stevenson has commenced practice in Winnipeg.

Dr. J. S. Waser (Tor. '02) is practising in Walkerton, Ontario.

Dr. F. E. Chalmers (Tor. '04) is assisting Dr. Williams at Bracebridge.

Dr. Brefney O'Reilly spent the month of August in the Georgian Bay.

Dr. J. E. Godfrey (Tor. '02) is practising at Richard's Landing, St. Joseph's Island, Ontario.

Dr. E. Ralph Hooper has removed to his new house on Bloor Street West, near Spadina Ave.

Dr. Wallace Smuck, of Toronto, spent a portion of the summer on Presque Isle, near Brighton.

Dr. Chas. Sheard, Medical Health Officer of Toronto, returned from a trip to New York, August 15th.

Dr. Clutterbuck (Tor. '00) has returned from the west and opened an office on Carlton Street, Toronto.

Dr. J. Algernon Temple spent a portion of the summer at his residence, Degrassi Point, Lake Simcoe.

Dr. Allen Baines spent a portion of the month of August at the hotel of the Caledon Mountain Trout Company.

Dr. A. McPhedran, after a trip down the St. Lawrence, returned to Toronto and resumed practice August 25th.

Dr. J. S. A. Graham who has been on Georgian Bay for some weeks at Sir John Boyd's summer residence has returned to England.

Dr. E. V. Frederick (Tor. '03) sailed from Montreal for Europe, August 12th. He expects to remain abroad a year, in London, Paris and Berlin.

Dr. H. A. Bruce, of Toronto, returned, after a trip in Great Britain and the Continent, August 20th. He had an attack of acute appendicitis August 30th. Appendicectomy was performed August 31st. At the time of writing he is said to be recovering.

Dr. McLaurin, of the resident staff of the Toronto General Hospital, has recovered from an attack of appendicitis.

Dr. Murray McFarlane, after an extended trip to Montana and British Columbia, returned to Toronto August 20th.

Dr. Donald Armour (Tor. '94), who has been practising in London, England, for some years, has been appointed a Lecturer to the Royal College of Surgeons.

Dr. R. H. Mullin (Tor. '01) has settled in Minneapolis, where he has received a permanent appointment on the pathological staff of the university of that city.

Dr. J. S. McEachern (Trin. '97), of Elmvale, has gone to London, England, where he expects to remain a year, during which time he will devote his attention especially to surgery.

Drs. W. A. Carswell and R. W. Irving, of last year's resident staff, Toronto General Hospital, left Toronto, August 3rd, for the Western Territories, where they expect to remain for a limited time.

Dr. Geo. A. Peters, of Toronto, after spending a part of July and August in England, spent a few days at Scarboro Beach on the coast of Maine. He returned to his home and resumed practice September 1st.

Dr. E. Benson of Winnipeg, formerly a well known resident of Ontario, died in August after a paralytic stroke, aged 65. He practised in Winnipeg for about twenty-five years and was the Chief City Coroner.

Dr. Bruce Riordan, of Toronto, went to New London, Conn., where he was the guest of Mr. E. H. Fitzhugh, General Manager of the Central Vermont Railway, who took a party in his private car down to the coast for deep sea fishing.

Dr. Yin, (Tor. '03) a native of China, passed the examination for the double qualification from the College of Physicians and the College of Surgeons, England, August 14th. Dr. Yin received his preliminary education in the Anglo-Chinese College in Foo-Chow. After leaving that institution he was sent to Singapore as interpreter to the British Supreme Court. He preferred, however, to study medicine, and came to America for that purpose. He attended Ann Arbor University for two years, and then came to Toronto University, where he completed his course with high honors. Yin's many friends in the Faculty and among his own class of graduates are pleased with his success up to the present time and expect to hear more about him in the future.

Correspondence.

To the Editor of CANADIAN PRACTITIONER AND REVIEW :

DEAR SIR,—The American Medical Society for the study of alcohol and other narcotics was organized on June 8, 1904, by the union of the American Association for the study of inebriety and the Medical Temperance Association. Both of those societies are composed of physicians interested in the study and treatment of inebriety and the physiological nature and action of alcohol and narcotics in health and disease. The first society was organized in 1870, and has published five volumes of transactions and twenty-seven yearly volumes of the *Quarterly Journal of Inebriety*, the organ of its association. The second society began in 1891, and has issued three volumes of transactions and for seven years published a *Quarterly Bulletin* containing the papers read at its meetings. The special object of the union of the two societies is to create greater interest among physicians to study one of the greatest evils of modern times. Its plan of work is to encourage and promote more exact scientific studies of the nature and effects of alcohol in health and disease, particularly of its etiological, physiological and therapeutic relations. Second, to secure more accurate investigations of the disease associated or following from the use of alcohol and narcotics. Third, to correct the present empirical treatment of these diseases by secret drugs and so called specifics, and to secure legislation prohibiting the sale of nostrums claiming to be absolute cures containing dangerous poisons. Fourth, to encourage special legislation for the care, control and medical treatment of spirit and drug takers. The alcoholic problem and the diseases which centre and spring from it are becoming more prominent and its medical and hygienic importance have assumed such proportions that physicians everywhere are called on for advice and counsel. Public sentiment is turning to medical men for authoritative facts and conclusions to enable them to realize the causes, means of prevention and cure of this evil. This new society comes to meet this want by enlisting medical men as members and stimulating new studies and researches from a broader and more scientific point of view. As a medical and hygienic topic the alcoholic problem has an intense personal interest, not only to every physician, but to the public generally, in every town and city in the country. This interest demands concentrated efforts through the medium of a society to clear away the present confusion, educate public sentiment, and make medical men the final authority in the consideration of the remedial measure for cure and prevention. For this purpose a most urgent appeal is made to all physicians to assist in making this society the medium and authority for the scientific study of the subject. T. D. CROTHERS, *Sec.*

Hartford, Conn., August 17th, 1904.

Book Reviews.

Progressive Medicine, Vol. II., June, 1904. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 334 pages, 47 illustrations. Per annum, in four cloth-bound volumes, $9.00; in paper binding, $6.00, carriage paid to any address. Philadelphia and New York: Lea Brothers & Co.

The second volume of this valuable quarterly contains articles on abdominal surgery, gynecology, diseases of the blood, spleen, thyroid gland and lymphatic system diathetic and metabolic diseases and ophthalmology. The principal contributors are Clark, Coley, Jackson and Stengel, whose names are a sufficient guarantee of the value of the book. This number is in every way equal to the twenty-one which have preceded it.

Epilepsy and Its Treatment. By WILLIAM P. SPRATLING, M.D. Pp. 522; $4.00. Philadelphia, New York and London: W. B. Saunders & Co. Toronto: J. A. Carveth & Co., Limited.

It will be of interest to the profession to learn that Dr. Spratling has published in a permanent form the results of his long study and experience of this disease in the Craig Colony for Epileptics at Sonyea, N.Y. (of which he has been superintendent for the last ten years), the New Jersey State Hospital and the Vanderbilt Clinic of Columbia College.

The increased attention devoted to epilepsy during the past twenty years has been rewarded by some progress, and it was necessary that this progress should be clearly and systematically brought before the profession, as Dr. Spratling has done in this valuable work. No part of the subject has been neglected, but the chief interest naturally centres in the chapters on treatment, which are excellent. The author does not claim too much: he thinks that about 5 per cent. of all cases are curable. Clinical records are given in abundance, and the book is practical in its character.

Obstetric and Gynecologic Nursing. By EDWARD P. DAVIS, A.M., M.D., Professor of Obstetrics in Jefferson Medical College. Pp. 402; $1.75. Philadelphia, New York and London: W. B. Saunders & Co. Toronto: J. A. Carveth & Co., Limited.

This is the second edition of Professor Davis' book, which is already well and favorably known. It bears marks of careful revision, and some additions have also been made. In subsequent editions we would suggest that specimens of charts may be given, together with directions for recording the height of the fundus uteri, etc.

Plain Words About Food. The Chemistry of Cooking and Cleaning. Boston: Whitcomb & Barrows.

The physician is some times asked for a book about the hygiene of a home, or absolute care of children, or about the way to bring up a baby, or about food and cooking, or some other of the many industries that centre in a home. Two such books, brief, practical and interesting, are mentioned above, and the firm which now publishes them was formed to act as a distributing centre for books of this class. So often the question of health is a question of good food, air and common sense in the home, that we know many of our readers will be glad of this information.

AMERICAN EDITION OF NOTHNAGEL'S PRACTICE.

Diseases of the Intestines and Peritoneum. By Dr. Hermann Nothnagel, of Vienna. The entire volume edited, with additions, by Humphrey D. Rolleston, M.D., F.R.C.P., Physician to St. George's Hospital, London, England. Octavo volume of 1032 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto. Cloth, $5.00 net; Half Morocco, $6.00 net.

This new volume in Saunders' American edition of "Nothnagel's Practice" is the eighth to be issued, and appearing within two months after the publication of the volume on Tuberculosis, gives evidence that the publishers intend completing the series at an early date. This, one of the most valuable volumes in the series, is by the famous clinician Dr. Hermann Nothnagel himself, and is as exhaustive as it is practical. The distinguished editor, Dr. Humphrey D. Rolleston, of London, England, has used his pen most profusely, almost every page giving generous evidence of his careful editing. The editorial additions include sections of Intestinal Sand, Sprue, Ulcerative Colitis, and Idiopathic Dilatation of the Colon. Appendicitis and Peritonitis have been given unusual space, treatment and diagnosis receiving exhaustive consideration. The section on Intussusception has been greatly enlarged by the invaluable additions of D'Arcy Power, of England, who has made this subject his own. There are twenty inserts of great merit.

An Introduction to Vertebrate Embryology Based on the Study of the Frog and the Chick. By A. M. Reese, Ph.D., Associate Professor of Histology in Syracuse University. 84 Illustrations. Price, $1.20. G. P. Putnam's Sons, New York and London. The Knickerbocker Press. Wm. Briggs, Toronto.

This volume is intended as an outline from which the student may learn the main facts of embryology. The abundant illustrations and the good letterpress make it an easy book to read.

International Clinics. A Quarterly of Illustrated Clinical Lectures and especially prepared original articles, by leading members of the Medical Profession throughout the world. Vol. I., 14th series. Philadelphia. J. B. Lippincott Company. Canadian Agent: Chas. Roberts, 1524 Ontario Street, Montreal.

Among the contributors to this volume are Carl Beck, Cattell, Bloodgood, Widal, Davenport, Stevens and Noble—names sufficient in themselves to guarantee that this number is fully equal to any of its predecessors. The articles are all short, clear and straight to the point, written by busy men for busy men, on all possible subjects of current interest. Extracts from some of these excellent contributions appear in the columns of this journal.

A Text-Book of Pathology. By JOSEPH MCFARLAND, M.D., Professor of Pathology and Bacteriology in the Medico Chirurgical College of Philadelphia; Pathologist to the Medico-Chirurgical Hospital. Philadelphia. Handsome octavo volume of 818 pages, with 350 illustrations, a number in colors. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Cloth, $5.00 net; Sheep or Half Morocco, $6.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

This is an excellent book as regards both text and illustrations. Of the latter there are a number of beautiful ones in colors, printed directly in the text. Dr. McFarland's thirteen years' experience as a teacher of this subject, besides his extensive personal research in the laboratory, has fitted him most admirably to write a text-book on pathology, and this work is all that any one—student or practitioner—could desire. Unlike most works on pathology, the subject is treated, not from the professor's point of view, but from that of the student, the many difficult theories of the science being explained in clear, concise language.

Diseases of the Nose and Throat. By D. BRADEN KYLE, M.D., Professor of Laryngology and Rhinology, Jefferson Medical College, Philadelphia; Consulting Laryngologist, Rhinologist and Otologist, St. Agnes' Hospital. Third edition, thoroughly revised and enlarged. Octavo volume of 669 pages, with 175 illustrations, and 6 chromo-lithographic plates. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $4.00 net; Sheep or Half Morocco, $5.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

In presenting to the profession the third edition of this work the general plan of the previous editions have not been materially altered. The entire book has been carefully revised and such additions have been made as were rendered necessary by recent medical progress. The most important alterations and additions have been made in the chapters on Keratosis, Epidemic Influenza, Gersuny's Paraffine Method for the correction of Nasal Deformities, and in the one on the X-Rays in the treat-

ment of Carcinoma. The etiology and treatment of Hay Fever have been partially rewritten and much enlarged, as has also the operative treatment of Deformities of the Nasal Septum. In the chapter devoted to general considerations of Mucous Membranes and Hay Fever, the author records the results of his experience in the chemistry of the saliva and nasal secretions in relation to diagnosis and treatment. The literature has been carefully reviewed, and a number of new illustrations added, thus bringing the work absolutely down to date.

The Doctor's Leisure Hour. Facts and Fancies of Interest to the Doctor and his Patient. CHARLES WELLS MOULTON, General Editor. Arranged by PORTER DAVIES, M.D. 1904. The Saalfield Publishing Co., Akron, Ohio.

This volume is written by a physician who has been in general practice for many years, and, as the author tells us, is the "product of his leisure hour." It contains much curious and entertaining literature respecting the medical profession. The witty and humorous features are combined with many pages of weighty and instructive matter. It is a very interesting book in all respects.

A Text-Book of Mechano-Therapy (MASSAGE AND MEDICAL GYMNASTICS). For Medical Students, Trained Nurses, and Medical Gymnasts. By AXEL V. GRAFSTROM, B.Sc., M.D., Attending Physician to the Gustavus Adolphus Orphanage, Jamestown, N.Y. Second edition, revised, enlarged, and entirely reset. 12mo of 200 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto. Cloth, $1.25 net.

The second edition of this useful little work has been entirely rewritten, reset, and very much enlarged. The author states that his object has been to present a work that would be useful as a text-book to students, trained nurses, and medical gymnasts, and as a reference book for the general practitioner, and in our opinion he has fully accomplished his purpose. It is certainly a practical and clear consideration of the subjects of massage and medical gymnastics, and it is with pleasure that we recommend it to our readers.

Materia Medica for Nursing. By EMILY A. M. STONEY, Superintendent of the Training School for Nurses in the Carney Hospital, South Boston, Mass. Beautiful 12mo. volume of 300 pages. Second edition, thoroughly revised. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street; Toronto. Cloth, $1.50 net.

This little work on Materia Medica has proved of great value to the nursing profession, evidenced by the demand for a second edition. The statements are not only clear and definite, but the information given can be relied upon as being accurate. In

making the revision for this new second edition, the entire text shows evidence of having been gone over with the greatest care. All the new drugs which have been shown to be of actual therapeutic value have been included, their preparations, uses, and doses being clearly and fully described. A valuable feature of the work is the Appendix, containing such practical matter as Poison-Emergencies, Dose-Lists, Weights and Measure, etc., as well as a Glossary of the terms used in materia medica. There is no doubt in our minds but that this little work is the best of its kind.

Dudley's Gynecology. New (4th) Edition. A Treatise on the Principles and Practice of Gynecology. By E C. DUDLEY, A.M., M.D., Professor of Gynecology in the Northwestern University Medical School, Chicago. New (4th) edition. Revised and enlarged. Octavo, 771 pages, with 401 illustrations, of which 50 are in colors, and 18 full-page colored plates. Cloth, $5.00 net; leather, $6.00 net; half morocco, $6.50 net.

In accordance with the original plan of the book the subjects are divided, not in the usual manner of grouping in each part all the diverse diseases of some special organ, but so far as practicable have arranged them in pathological and etiological sequence. For example, infections and inflammations are brought together so that vulvovaginitis, metritis, salpingitis, ovaritis, peritonitis, and cellulitis may be studied in the combined forms which they ordinarily assume. In like manner, tumors are treated in another part, traumatisms in another, and displacements in another. Under this plan the student has constantly before him the physiological and pathological unity of the reproductive system; on the other hand, if he considered all the diseases of each organ in a part by itself, he would find tumors, traumatisms, displacements, and other anomalies thrown in between the infections of that organ and causal or resultant infections in other parts of the pelvis, and thus might lose sight of the significance of morbid processes and the relations of those processes to one another.

The sections relating to General Diagnosis, Local Treatment, Major Operations, Drainage, Urethritis, Cystitis, Ovarian Tumors, Embryology, Malformations, and the Treatment of Salpingitis, Ovaritis, and Pelvic Peritonitis, have been subjected to special revision and to a great extent have been rewritten, with practical additions.

Not less sweeping than the revision of the text has been that of the illustrations to the exclusion of all borrowed engravings, and the introduction of more than three hundred new ones all reproduced from drawings specially made for the book; but what is more important than this, all minor and major manipulations and operations have been illustrated, to show the several

procedures as they take place step by step, each operation being set forth in a series of drawings; for example, twelve drawings describe the steps of hysteromyomectomy, and thirty-two explain perineal lacerations and the steps of perineorrhaphy. The surgical instrument catalogue element has been eliminated; all instruments, so far as practicable, being shown as they appear in actual work.

Materia Medica, Pharmacology, and Therapeutics—Inorganic Substances. By CHARLES D. F. PHILLIPS, M.D., LL.D. (Abdn. and Edin.), F.R.S. and F.R.C.S. (Edin.), Hon. Fellow Medico-Chirurgical College, Pennsylvania; member of the Academy of Medicine of America; Examiner in Materia Medica, University of Aberdeen; late Examiner in the Universities of Edinburgh and Glasgow; member of the Physiological Society of London; late Lecturer on Materia Medica and Therapeutics at the Westminster Medical School, etc., etc. Third edition. Longmans, Green & Co., 39 Paternoster Row, London, New York and Bombay 1904. Price, 21 shillings.

This book has occupied for many years a position of eminence among others of its kind. The third edition is practically a new book, with full information on such new departures as cacodizlates, glycerophosphates, radiant heat, etc. Everything in the volume bespeaks the careful and accurate observer, and the conservative, though not dogmatic, author. We eagerly await the second volume on the organic compounds.

The Man who Pleases and the Woman who Charms. By JOHN A. CONE. Third edition, revised. Cloth, 16mo.; price 75 cents, postpaid. Published by Hinds & Noble, 31-35 West 15th St., New York.

The great value of a pleasing address, tactful manners and cheery ways, in all the affairs of life, are well known. Mr. Cone's book emphasizes these things and sets forth the ways by which anyone may acquire the accomplishments which mark the cultured man. Of course the book is intended for the general reader, but the physician can profit quite as much as anyone by its perusal, for to whom is the possession of the social graces of greater import than to the physician?

Complying with a very general request from its subscribers, "Progressive Medicine" is now issued in strong paper covers. This change allows of its being sent by mail instead of express, and the publishers are thus enabled to reduce its price to $6.00 per annum, instead of $10.00. To such subscribers who prefer it bound in cloth, we have arranged to send it at $2.25 per volume ($9.00 per annum). There has been no change in its editorial management nor in its corps of contributors, and its high standard will be not only maintained but, if possible, improved.

Selections.

Acute Gastro-Enteritis in Infants.

M. Hutinel, in *La Revue des Maladies de l'enfance*, considers the following as the therapeutic indications to be met:—

1. To dry up the source of the poisons forming in the intestine.

2. To prevent the pathogenic germs from finding in the digestive canal a favorable soil for their growth—antisepsis of the intestine.

3. To restore to the organism the water it has lost.

To make the poisons disappear we must modify the diet, giving water only. This should be a mild mineral water, or ordinary water carefully boiled. It must be given in small quantities, frequently repeated. This water treatment may be continued in young infants for from 12 to 48 hours. In older children we may prolong it for several days. When, in spite of the water treatment, the vomiting continues and the general symptoms remain serious, we must have recourse to lavage of the stomach.

To eliminate the poisons already formed we employ purgatives—calomel in small doses, castor oil, or sulphate of soda. No intestinal antiseptic must be employed in acute gastro-enteritis. If used at all it must be when the infection is on the wane.

If the general symptoms continue threatening in spite of the above measures, we must use hypodermic injections of serum, which restore to the organism the water it has lost, raise the blood pressure and increase the excretion of urea. The serum is that ordinarily used (7 per 1000 of Na. Cl.). One must not inject too large quantities. When convulsions are imminent we give baths, at 38 deg., every four hours, using mustard in the baths if the choleriform phenomena predominate. Sometimes we inject subcutaneously camphorated oil or ether.

Alimentation is resumed very gradually. In infants under six months, after 12 or 24 hours of water diet, we begin with half a teaspoonful of milk, repeated in four hours if the first agree. In older children we try barley-water or rice-water, then broths and then milk.—Translated from *Gazette des Hôpitaux*, by HARLEY SMITH.

Hydrotherapy in Psychosis.

W. Alter considers hydrotherapy the best of all sedative measures. He has tried it in 79 per cent. of his patients, not only in furious excitement and acute dementia, but also in cases of profound dejection and hysteria. He employs baths

from one to six hours in duration; baths of not less than twelve hours' duration and wet packs continued from one to twelve hours. The baths are given to patients suffering from insomnia, and to the insane who have explosions and paroxysms. The emotional manifestations of hebephrenic patients are largely modified thereby. In hysterical patients the wet packs are better than the baths. In no case has the prolonged bath been abandoned because of a negative result. In several cases it has been continued for long periods, even to 8, 14 and 23 days. Arterio-sclerosis and affections of the heart are not a contra-indication to the treatment.

Hydrotherapy, properly employed, permits a greatly reduced use of sedative drugs. Alter, however, gives opium to melancholics in increasing doses, also applying the wet pack systematically, thereby hastening the effect of the drug.—Translated from *La Progrès Médical*, by HARLEY SMITH.

Mycosis Fungoides after Injury.

Riecke (*Arch. für Derm. und Syph.*, November 1903) reports a case of mycosis fungoides which dated from an injury. Soon after a fall on the back of the head, a firm elastic swelling was found on the scalp. This spread to the size of the palm, and became depressed in the centre and covered with dirty scales. Several months later similar tumors appeared on the scalp, and had a tendency to break down. Infiltration occurred in the skin of the neck and ulcerating tumors developed on the hard palate. *Post mortem* metastatic growths were found in the dura mater, kidneys, suprarenals, and retro-peritoneal glands; and these had the same histological structure as the scalp tumors.—*British Medical Journal.*

Pentosuria.

M. Bial (*Berl. klin. Woch.*, May 23rd, 1904) records an instance of pentosuria occurring in three members of one family, and discusses the subject. The first patient was supposed to be suffering from glycosuria and adiposity, and her urine was said to contain 0.3 per cent. of sugar. On examining the urine, Bial found that a strong reduction took place during boiling with Fehling's reagent; with his pentose reagent it gave a striking reaction, the green color coming out when a few drops of urine were added to 5 c.cm. of reagent and heated; the fermenting and polarizating tests for sugar were both negative; and, lastly, by means of repeated crystallization, the osazon was gained, which was found to be pentose-osazon, having a melting point of 150°, and a N value of 17.01 per cent. (Glucose-osazon has a melting point of 205°, and a N value of 15.6 per cent.) The second case was that of the

brother of the first patient. He, too, was supposed to be suffering from diabetes, and his urine had been examined in various laboratories, and found to contain from 0.1 to 0.3 per cent. sugar. His urine gave the characteristic reactions of pentose as mentioned in the first case. The third case was that of a sister of the two patients. In this case, too, the diagnosis of diabetes had been made and had disturbed the patient's peace of mind. There was no sugar in the urine, but only pentose. Bial points out that it is a serious mistake to confuse this harmless condition pentosuria with diabetes, and the general practitioner need not fear that the detection of pentose in the urine needs a complicated analysis and expensive apparatus; the spectroscope and polarimeter are not necessary; his reagent is able to determine when the reducing substance is pentose.—*British Medical Journal.*

Pyelo-nephritis Cured by Massage.

La Policlinique, April 15th, 1904, contains an account of a case of pyelo-nephritis shown to the Policlinic at Brussels by Bastin-Williams, who describes the patient as being completely cured by massage. Two days before a confinement at term she fell on her right side. Four days after the confinement her urine was observed to be thick. There had been no catheterism. Seven weeks later she came complaining of a dull pain in the right flank, with occasional exacerbations. She was passing urine without pain every two hours during the day, and twice each night. Her appetite failed, she had slight fever, and her general health had deteriorated. The urine was very thick with pus, and contained no blood. The right kidney was prolapsed, and sensibly larger than normal. When the urine from the two kidneys was separated by Luy's method it was found that two-thirds came from the left kidney and was clear, the remainder from the right kidney was purulent. About 50 grams of retained urine could be brought away by pressure on the pelvis of the right kidney. The treatment adopted consisted of daily massage of the kidney, and the administration of salol by the mouth. From the first fever disappeared, pain diminished, appetite returned, and the patient was obviously better. The pus gradually disappeared from the urine. When the patient was brought before the policlinic she was in robust health, the right kidney was still a little prolapsed and enlarged, and there was still retention of about 30 grams of clear and aseptic urine in the ureter. There were no subjective symptoms. At this time all treatment had been at an end for six months, and Bastin-Williams therefore claimed that the disease was finally cured. His explanation of the case was that traumatism had led to the microbic invasion of the pelvis of the kidney

from the blood, and that massage effected a cure by regularly emptying the retention pouch and producing the ordinary circulatory reactions.—*British Medical Journal.*

The Diagnosis of Carcinoma of the Stomach.

J. Sigel considers the means at disposal for rendering the diagnosis of gastric carcinoma certain, and states that neither the absence of free hydrochloric acid nor the presence of lactic acid, nor yet the absence of digestion leucocytosis, nor the proof of obscure hemoptyses are quite reliable signs, and even when they do point to the disease this has generally passed the very early stages when the diagnosis is of greatest importance (*Berl. klin. Woch.*, March 21st and 28th, 1904). In more recent time four methods have been suggested. The first is the tryptophan reaction, which consists of the appearance of a reddish-violet color body when the proteinochrome produced in the disintegration of albuminous compounds is treated with either chlorine or bromine. The red-violet color is said to appear in carcinoma of the stomach when the contents is gained by a "trial breakfast," and is treated with chlorine. The results obtained by various observers differ largely, and Sigel therefore tested this reaction in 15 cases of cancer of the stomach, and only in 2 cases was it distinctly positive. The second method has been introduced by Salomon, and depends on the determination of the amount of albumen in the gastric secretion. This observer found that gastric carcinomata always exude an albuminous fluid, and therefore considers that this may be made of use in diagnosis. The patient is given only fluids during the morning; from 2 p.m. the diet is fluid and free from albumen, nothing is taken during the night, and next morning the stomach is washed out with 400 c.cm. of physiological salt solution very thoroughly. The albumen is estimated by Esbach's test and the amount of nitrogen in the fluid by Kjeldahl's test. Distinct flocculent precipitation by Esbach's reagent and a value of nitrogen exceeding 25 mgr. in 100 c.cm. of the fluid speak for carcinoma of the stomach. Sigel tested this method in 20 cases, and comes to about the same results as Salomon. But just in those cases in which a differential diagnosis is most difficult the method is not to be relied upon. The cases quoted are those of benign ulcer of the stomach and malignant ulcer of the lesser curvature. The results in simple gastric ulcer vary within wide limits. However, he considers that the method should be practised, and in certain cases it may assist in clearing up a doubtful diagnosis. The third method is that of Gluzinski, and depends on the suggestion that the acid catarrh of gastric ulcer changes into a mucous catarrh either if the ulcer becomes malignant or when fibrous healing takes place.

By careful attention to the other signs, if one determines the time when the acid catarrh changes into the mucous, one can determine whether the case has gone to scarring or malignant degeneration. The stomach is washed out during fasting in the morning, later on it is again washed out after a trial breakfast; and, lastly, still on the same day, after a trial dinner. If free hydrochloric acid is absent in one of the washings, and is markedly present in the others, there is evidence that the acid catarrh is passing into the mucous. Sigel finds that at times this method may help one to a correct diagnosis, but it fails one in other cases. The great discomfort of having the stomach washed out three times in one day falls away when one considers that this test is only to be applied in cases when the diagnosis is either simple or malignant ulcer of the stomach, and since the correct decision is of so much importance to the patient that if the position is explained to him he will readily submit to the test. The fourth test is the testing for fatty acids in the urine. Rosenfeld found that in gastric ulcer and gastrectasis, with normal acidity or hyperacidity, the volatile fatty acids in the urine are much increased; in stasis of the contents of the stomach depending on pyloric scar or gastroptosis with subacidity or anacidity, the fatty acids are either little or greatly increased. Sigel has also tested the truth of this statement, and finds that one cannot base either a diagnosis or differential diagnosis on this analysis. He therefore is forced to the conclusion that none of these methods is capable of forming a certain diagnosis of sarcoma of the stomach, and one must therefore rely on the physical and other well-tried signs, and spare no pains in attempting to elicit in each case all the data on which one may be able to build up a correct diagnosis.—*British Medical Journal.*

The Action of Organic Extracts on Arterial Pressure.

Patta (Inaugural Dissertation Pavia, 1904) experimented with a number of organic extracts to determine their influence on arterial pressure, and sums his results as follows: The considerable increase in blood pressure, as produced by the extract of the suprarenal bodies, is independent of any action of the vasomotor centre; nor can it be ascribed exclusively to a peripheral constriction of blood vessels, but must be credited to a large extent to increased cardiac work. The peripheral constriction of the blood vessels is not produced by the action of the extract on the terminal filaments of the nervi vasorum. The slowing of the pulse produced by the extract depends upon an irritation of the cardiac filaments of the vagus; it is believed to be due to the action of that part of the drug, which comes

from the cortex of the organ, and which is less powerful from the standpoint of blood pressure than the medullary extract.

Thyroidin lowers blood pressure, most likely in a manner directly opposed to that started by suprarenin. Ovarin lowers blood pressure, markedly and persistently, and increases the frequency of the pulse. Both these conditions are independent of any action of the vasomotor centre. Orchidin increases arterial pressure by its influence on the vasomotor centres. Spermin Poehl has an analogous action. No difference is noted in the behavior of male and female animals when extracts of the genitali organs are injected. Cerebrin Poehl increases blood pressure and produces a slight slowing of the pulse.—*Therapeutic Review.*

The Element of Tact in Medical Practice.

It can be truly said that no profession calls for a greater display of tact than that of medicine, and yet, how many physicians are deficient in this very essential quality. Its possession even in a man of mediocre professional ability is frequently sufficient to give him a place in popular estimation far above that of his less tactful though more able colleague.

To some extent tact is a natural quality, but it can certainly be acquired and cultivated. Its possession is particularly desirable in the surgeon, who still inspires considerable fear among the laity. It is not alone what he says, but what he leaves unsaid, that impresses the mind of the patient. To the tactful man it is possible to state unpalatable facts without awakening anxiety and suspicion, and this he can do without underrating the risk of a necessary operative procedure. There are, indeed, people of such decided equanimity that they are willing, and even prefer, to know the worst; but these constitute by far the minority. The majority of patients in this nervous age must be handled in the most tactful manner. They are apt to dwell upon every word and weigh its significance. A thoughtless word may inflict the greatest amount of worry, and we well recognize the injurious effect of anxiety and worry upon the vitality.

Some patients have a way of asking leading questions in regard to the prognosis of their ailments. What they really wish is an expression of hopefulness. But this by the untactful man is frequently misinterpreted as a desire to know the true state of affairs, and the answer based upon this erroneous interpretation often produces a disagreeable mental impression which is very difficult to remove without awakening further distrust. When confronted with an unfavorable case it is best to inform the relatives and friends of the true condition, but to let the patient see at least a ray of hope. After all, the

majority of physicians when seriously ill themselves would prefer not to know the exact facts; for while there is hope there is life.

A tactful surgeon does not make any unnecessary display of surgical instruments, which however attractive they may appear to himself will needlessly alarm the patient. Fortunately an array of pathological specimens in bottles and an exhibition of skulls and crossbones are no longer considered ornaments of the physician's office, and there can be no doubt that the modern doctor is infinitely more considerate than his predecessors who depended upon these accessories, in connection with a magisterial appearance, a domineering and gruff manner, and a display of technical language, to impress their patients with their professional attainments and skill.—*International Journal of Surgery.*

Infusion in Pulmonary Tuberculosis.

Jacob, Bongart and Rosenberg (*Deut. Med. Woch.*) report experimental and clinical work with infusions in pulmonary tuberculosis. The vocal cords and epiglottis are anesthetized with a 20 per cent. solution of cocaine, following which a fine spray of $2\frac{1}{2}$ per cent. solution of beta-eucaine is thrown into the trachea. A flexible stileted bougie is next introduced into the trachea, and when in place the stilet is withdrawn so that the bougie can be introduced into either bronchus. Next from 20 to 30 c.c. of a solution of 0.01 to 0.02 of tuberculin in 100 c.c. of water was introduced into the lungs by means of a syringe attached to the bougie. The tuberculin reaction is promptly produced, but as it disappears the quantity of the tuberculin is gradually increased. Patients are kept in a horizontal position, as in that way, of course, the solution is more liable to find its way to the upper portion of the lungs. The entire procedure, after a little experience, takes but a few minutes and is easily borne by the patient. Five patients were treated by this method, all in the second stage and in a depraved physical condition, yet all improved so much as to have been pronounced clinically cured. No after-effects were noted. In addition to the therapeutic aid, diagnostic value is claimed for the method, in that the tuberculin reaction occurs with but one-tenth to one-twelfth of the amount of tuberculin that is required to produce a similar reaction by the subcutaneous method. If a tuberculous process is present in some portion of the body other than the lungs, the amount of tuberculin necessary to produce reaction practically approximates that required by injection into the subcutaneous tissues.—*Cincinnati Lancet-Clinic.*

The Canadian Practitioner and Review.

VOL. XXIX. TORONTO, OCTOBER, 1904. NO. 10.

Original Communications.

PRESIDENT'S ADDRESS—CANADIAN MEDICAL ASSOCIATION, 1904.*

BY SIMON J. TUNSTALL, B.A., M.D., VANCOUVER, B.C.

Mr. Chairman and Gentlemen,—I feel that my first duty to-night is to offer you my very hearty thanks for the honor you have conferred upon me in electing me President of the Association.

When I recall the names of those who have preceded me in this chair, I can only ask your indulgence for the deficiencies you may find in me, of which I am very conscious, and express the hope that under my presidency the interests of the Association may in no wise suffer nor its honor be in any way tarnished.

The present occasion is no ordinary one. In the appointment of a President from among the members of the Association whose home and work lie in this far distant portion of the Dominion, and in our meeting here to-day at the Doorway of the West, a new departure has been made.

I am far too modest to suppose for an instant that any particular merit of mine has induced the Association to make this departure; rather I conceive it to be due to a general recognition of the claims and standing of the western members as a whole, and of the growing importance of this fair Western Province.

I should be performing my duties but poorly did I not seize this opportunity to thank you on behalf of my western confreres, and on behalf of the people of this Province in general,

*Delivered at Meeting of Canadian Medical Association, Vancouver B.C., August 1904.

and of this city in particular, for the compliment you have paid us in selecting this Province and this city as the place of meeting for this year, and I feel I am only expressing their wishes in tendering you a hearty western welcome to our midst, and their hopes that your brief stay among us will be both pleasant and profitable to you all.

To many of you, probably to most of you, the rapid progress and general development of this young Province will come as a surprise. It does to most of our visitors from the older parts of the Dominion who know how recent has been the settlement of the West. And certainly, looking round, it does seem scarcely realizable that the site of this rapidly expanding city, of which its citizens are so justly proud, and the very spot on which this building stands, surrounded by so many comforts and refinements of modern life, was, less than two decades ago, a wild and almost impenetrable virgin forest, the haunts of the bear, the deer and the primitive savage.

It is less than a score of years by two that the incorporation of this city took place, and yet to-day it will compare favorably with many cities of the older Provinces twice and thrice its age. From the medical standpoint it is reaching after a high ideal.

The incomparable water supply which is brought in closed steel conduits from the bosom of the mountains to the north of us; the sewerage system, with its septic tanks; the paved streets, with their array of cleaners; the cement sidewalks which are now throughout the city, rapidly replacing the earlier and cruder planking; the public and private hospitals; the General Hospital, which is now being built, and which, when finished, will be the peer of any hospital of its size, all make it clear that we are endeavoring to keep abreast of the times, as well in sanitary as in other matters.

It is no idle boast, then, if I say that in the West events move rapidly. Time is no sluggard here, and we see history fashioning itself before our eyes. The whole of this great Province was in undisputed possession of savage aborigines a half century ago. The closing years of the first half of the nineteenth century saw the first real settlement made on Vancouver Island, at a place called Camosum in the native tongue, now Victoria, the capital of the Province.

A few years later, in 1858, an Act was passed in the Home Parliament to provide for the government of this new colony, thereafter to be known as British Columbia. From this date the real settlement of the Province begins. The discovery of gold in the Fraser and Cariboo soon made these districts as famous and as widely known as Sacramento or Ballarat, and a great inrush of population was the result. But a very few

years later the conception of that colossal and momentous undertaking, the building of the Canadian Pacific Railway, began to shape itself in men's minds, and was finally carried out. You are all, doubtless, familiar with this great undertaking, and know the almost insuperable difficulties its earlier promoters had to contend with, and how in the end, in spite of political, natural and every other obstacle and hindrance, they successfully carried through the scheme, and made possible the union of British Columbia and the great North-West with the rest of Canada, and gave us as a result that splendid heritage, that united land which stretches from ocean to ocean, from the rising of the sun to the going down thereof—a land of which all her sons and daughters are so proud—our beloved Canada.

It is gratifying to the profession to know that it has been ably and honorably represented among those history-makers in the persons of Drs. Helmcken and Tolmie, who were the first medical men to settle in the colony, about the middle of the last century. Both took prominent parts in the earlier events of the Province. The former still remains with us; the latter has gone to his rest. Prior to their advent the native Medicine-man had it all his own way.

There is a significance, not without interest to my mind, in the fact that this Association, representing as it does to-day in its various members the highest medical knowledge of this enlightened part of the world's history, should meet here in this new country, where Shamatism, or the cult of the savage Medicine-man, so recently prevailed, and does to some extent still prevail. The old and the new order of things are thus brought into suggestive contrast and juxtaposition, and we are led naturally to reflect upon the stages and steps we have passed since the days when all medical knowledge was comprised in the superstitious and rude practices of our savage prototypes; and in spite of our sometime failures and our lack of knowledge, still, in certain directions the reflection on the whole is a pleasant and gratifying one, both to ourselves and humanity at large. It certainly would not be the least interesting of subjects were I to attempt on this occasion a general survey of the march and progress of medical science from the days and practices of the primitive Medicine-man as we find him even in this Province, down to the times and discoveries of Lister, Pasteur, Virchow and their followers.

But it is not my intention to undertake such a task to-night, interesting and appropriate as it might under the circumstances be, although I cannot leave the subject without calling your attention briefly to a fact of which all of you may not be aware, and which gives pertinence to my reference to the old-time Shaman or Medicine-man. We are all familiar with

hypnotism, but there are few of us, perhaps, aware that in the employment of hypnotism as a therapeutic agent we are returning to primitive methods, to the practice of our savage prototypes. Those who have made special study of the practices and custom of savage races inform us that the primitive doctor or Medicine-man, was not that self-conscious fraud and humbug, knowingly duping his credulous patients, he is thought to have been, but a person who had a belief in his own powers and cures; and that those powers and cures were, when genuine, generally, if not always, attributable to hypnotism, especially to that phase of it known as suggestion. A state of hypnosis was induced in his patient by the monotonous droning of his medicine song and the noise of his rattle, and when in this condition his attempt to extract the spirit of the disease from the patient's body, and his statement that he had presently accomplished it, acted suggestively upon the imagination of the patient and effected the cure. "Extremes meet," and "there is nothing new under the sun," we are told, and the school of Nancy, which is founded upon the suggestive phase of hypnotism, is not a new practice, but an unconscious return, or rather I should say it is an unconscious modification and extension of these primitive methods which were in vogue among our savages here up to a few years ago, and may be to this day, for aught I know to the contrary.

But enough on this head. It is my intention rather to bespeak your consideration to-night of a point or two which I, in common with many of the members of the profession, have very much at heart, and which I deem of such importance as to merit our most careful consideration and endorsement.

I have reference in particular, to: 1. The Canadian Medical Protective Association. 2. The Federal Health Bill. 3. The Dominion Medical Council. 4. The Treatment of Inebriates.

With regard to the first, The Canadian Medical Protective Association, I would desire to urge upon members the strong claims this Association has upon the profession. I am among those who believe in the need of such an Association, and that it may be made a valuable means of assisting and protecting members of our profession from wrongful actions-at-law, to which we are all of us at all times liable; actions brought by irresponsible persons for alleged malpractice, or by unscrupulous persons for the purpose of obtaining money under threats of injury to our professional character.

It is well known that a medical man's professional prospects depend to a very large extent, if not entirely, upon his professional reputation, and it is not difficult, therefore, for unprincipled persons to attempt to levy blackmail upon him by threatening to bring action against him for malpractice or

professional incapacity, which action, though wholly groundless and undeserved, may have the most disastrous effects upon his career and pocket.

During the past two years the Association has fought out several such cases successfully, and has amply demonstrated its usefulness and justified its existence. It is, therefore, a matter of wonderment to many of us that the Association has thus far received so little encouragement or support from the profession as a whole. Out of a possible 5,500, the total membership last year was only 252. This is altogether too small a number to make the aims and work of the Association effective or sustain it in a solvent condition, and I welcome this opportunity to invite your earnest co-operation in enlarging its membership and strengthening the hands of the Executive, and would to this end suggest that a special committee be struck during the Convention for the purpose of considering how best to enlist the sympathies and support of our brethren who are not yet members. I cannot but think that a large increase in the membership must inevitably result if the aims of the Association be once rightly understood.

The objects of the Association are such as all can subscribe to. It is not intended to defend or assist in defending unworthy members, or those who are actually guilty of malpractice, or who have brought discredit upon the profession. It aims rather to assist the worthy, those of its members who are wrongfully charged and whose character and reputation are placed at stake: and also to deter irresponsible and unscrupulous persons from bringing action against members of the profession for the purpose of spiting or injuring them, or of exacting a bribe for their silence; and it is only by uniting ourselves together in such a way as this Association offers that we can hope to secure the support of our brethren and become immune to many attacks which would otherwise be made upon us.

I feel, therefore, that we have but to devise some plan of arousing the interest of our brethren in the matter to ensure their support and co-operation.

And now a word or two as to the Federal Health Bill. Thanks to the energetic efforts of the special committee appointed to attend to this matter considerable progress has been made towards the attainment of our desires in this behalf. The interest and sympathy of the Ministers of the Crown have been secured, and the Minister of Agriculture, the Hon. Mr. Fisher, under whose department the matter more directly falls, has taken the matter up most courteously and is thoroughly alive to its urgency and need. For the information of those not familiar with this subject, I would briefly say that the Association, at its meeting in Montreal in 1902, placed itself on record by reso-

lution to the effect that it is expedient that a Department of Public Health be created by the Dominion Government and administered under the authority of one of the existing Ministers of the Crown, thus bringing all general questions relating to sanitary science and public health under one central authority, to be known as the Public Health Department. There is no need for me to dwell upon the importance or desirability of this step; it must commend itself to every member of the profession.

Thus far the Government has not seen its way to grant the desired measure. The work is not yet accomplished, and the need of pushing the matter still exists. I sincerely hope the meeting will not dissolve without first passing a strong resolution in favor of the measure, and thus encourage and strengthen the hands of the committee who have this work in hand.

And now I desire to touch upon my third point, which I regard as of the highest importance. I refer here to the Dominion of Canada Medical Act, which was assented to in the Federal House in 1902. We are under a deep debt of gratitude to the members of the special committee, and especially to Dr. T. G. Roddick, for his untiring efforts to get this measure placed upon the statutes of the country and it is with great regret that I notice so much misapprehension as to the scope and powers of this Bill still exists in certain quarters. It has been thought that it would encroach upon the rights and privileges of the different Provincial Medical Boards and interfere with their autonomy, and I gladly hail this opportunity to say a few words which may help to remove this misapprehension. It was, and is, not in any way intended to interfere with existing provincial rights or intrench upon the prerogatives of Provincial Medical Boards. As an instance, in my own native Province, Quebec, our French-speaking brethren will have the right of examination in their own language.

Provincial registration and Provincial Boards will still continue to exist, and each Province will be at liberty to fix whatever standard it pleases for its own practitioners. They can, where they wish, continue as examining boards with power to grant provincial licenses, as they do now, and in any case in their hands will be left all matters relating to taxation and professional discipline.

The Bill is a purely permissive one, and though it has been placed upon the statutes of the country, it will be necessary, before it can become operative, to have the consent and cooperation of all the Provincial Medical Boards. Each Provincial Board will have to seek a slight amendment to its present Medical Act. This is all that is now required to make this most desirable measure effective, and I sincerely trust that this

consent and co-operation will not be long wanting, for the aims and scope of this Act are such as should commend themselves to every member of the profession. Briefly, I would say that the main purpose of this Bill is to establish a Central Medical Council of Canada, with power to examine candidates and grant licenses, the possession of which shall ensure to the holders thereof such a medical status as will enable them to practise not only in all parts of the Dominion, but in the United Kingdom as well, or, indeed, in any portion of his Majesty's Empire, in short, to do away with those mortifying disabilities under which a medicinal man trained in Canada now labors, and put him upon a footing of professional equality with his brethren in other parts of the Empire. This is assuredly a laudable and most desirable object, and one which, in my humble opinion, should call forth the best efforts of each one of us to bring about its accomplishment; and I sincerely trust that some concerted action will be taken in this matter before the meeting closes.

It is the least, I think, we can do to show our appreciation of the strenuous efforts exerted in securing the passage of so important a measure.

This brings me to my fourth and last point, "The Treatment of Inebriates." A conviction has been steadily growing in the minds of most medical men of late years that something should be done for the care and control of dipsomaniacs and inebriates in the form of founding establishments combining the main features of a hospital and an insane asylum, where drunkards could be legally confined under medical authority and treated in a systematic and enlightened manner. The practice, hitherto, of treating them as criminals subject to a fine or short periods of confinement in the common prisons of the country, has been shown to be wholly unsatisfactory and often productive of the greatest evil to themselves and those who may be dependent upon them.

There can be no doubt, I think, that the care and treatment of those unfortunate members of society is a question of the gravest and most vital importance, and should command the interest and attention of medical men as a subject, which, coming well within their province, affects so seriously the general commonwealth.

A movement towards this end has already been taken in Ontario, and a Bill drafted, the principles of which have received the endorsation of the Toronto Medical Society, and also of our own Association; but what we want is a Dominion Act affecting the whole country; and it would be the source of the greatest satisfaction to me if this meeting would take this question up seriously and nominate a committee to draft a

measure that could be submitted to the Federal authorities. This could be done either on the lines of the Ontario Bill or any others that might commend themselves.

Speaking, personally, I may say that I shall be only too glad to help in drafting such a measure and giving any other assistance in my power, for I am convinced that the adoption and carrying out of the provisions of a bill of this kind will do much to diminish the volume of sickness, pauperism, vice and crime that now stains the annals of our country and restore to lives of usefulness and self-respect many of those poor unfortunates whom it is the design of such a measure to control and help.

Before closing my address, I wish to express to our visiting brethren my appreciation of the kindly feeling and interest which have actuated them in taking part in the deliberations of our National Association, and to hope that their stay may be fruitful of pleasant reminiscences.

And now, gentlemen, I must thank you for your kind reception of me as your President this year, and for the patient and courteous hearing you have given to my remarks, and trust that the suggestions I have ventured to offer may meet with your approval and receive your support.

ADDRESS IN MEDICINE—CANADIAN MEDICAL ASSOCIATION.*

By R. E. McKECHNIE, M.D.

Mr. Chairman and Gentlemen,—In asking a member of the profession residing in the far West to deliver the address in medicine, I feel that a compliment has been paid, not so much to myself, as to the West. To demand that we, living so far away from the centres of learning, from the great teaching institutions of the East, should nevertheless be expected to keep ourselves abreast of the times and in touch with the latest discoveries, is surely expecting a great deal; and then to expect that one, living under such barren influences, should be able to give you an address equal to this occasion, containing some food for thought and pointing out the pathway of duty and practice, is to look still further for a miraculous manifestation. But the genius of the West is ever equal to all occasions. It has grown accustomed to the knowledge that the best wheat in the world grows in our North-West; that our forests can supply the hugest sticks of timber known to commerce; that our fisheries can supply the world with illimitable quantities of salmon, halibut and other delicacies; always the best, the hugest and the illimitable, ever the superlative. So it is not strange that a strong egotism has developed out here, sufficient even to accept this task, and hoping, but with misgivings, that its self-sufficiency may not suffer in the attempt. Personally, I feel that a great honor has been conferred on me, and I most sincerely thank the Association for its kindness, and trust that its confidence may not have been misplaced.

As to-day we seek to adapt treatment according to the cause of disease, so, looking back to the remotest ages, we find the human instinct groping along the same pathway. But in the early ages of the race science was unknown, and miracle was seen in every unexplainable phenomenon. Hence, disease was attributable to the wrath of a good being or the malice of an evil one, and treated accordingly. Among the ruder tribes the Medicine-man has ever held sway; but even in higher civilization we find that in Egypt the priests of Osiris and Isis claimed powers over disease; in Assyria, the priests of Gibil: in Greece, the priests of Aesculapius; in Judea, the priests of Jehovah. While these have ceased to exist with the decay of their respective religious systems, the ruder primitive tribes have persisted. They are found among the aboriginal tribes of Africa to-day, as also on this side of the Atlantic. Parkman,

*Read at Meeting of Canadian Medical Association, Vancouver, B.C., August, 1904.

in discussing the customs of the Hurons, says: "A great knowledge of simples for the cure of disease is popularly ascribed to the Indian. Here, however, as elsewhere, his knowledge is in fact scanty. He rarely reasons from cause to effect, or from effect to cause. Disease, in his belief, is the result of sorcery, the agency of spirits or supernatural influences, undefined and indefinable. The Indian doctor was a conjurer, and his remedies were to the last degree preposterous, ridiculous or revolting."

Among the Coast Indians in British Columbia the practice is still kept up, and it may interest you to hear me relate what I saw not forty miles from here only three years ago. In the Indian villages are to be found huge barnlike structures called rancheries, each consisting of one immense room and capable of accommodating twenty or thirty families. Living close to nature, the floor, of course, is mother earth. Rough stalls, arranged along the walls, separated by screens of rush matting and open towards the centre, form the none too private retreats of the individual families. Each lights its own fire on the earthen floor opposite, whereon their rude cooking is done. The smoke escapes through the shingles, as there is no chimney, and in the absence of windows the light comes in through the cracks in the wooden walls. I went down one evening to such a place to see a sick Indian woman. It was dusk, and the waves of the sea were lapping the beach close at hand, while dusky children flitted by in the twilight, engrossed in some pastime. On entering the only door in the rancherie, I found it in utter darkness, excepting for a small fire burning at the extreme end of the building. Here was presented a study in light and shade to have suited a Rembrandt. Around the fire was arranged a circle of Indian women (it is always the women who are closest to the mysteries of nature), while at one side was the patient, too weak to sit up, but supported by a couple of sympathizers. Facing her was the Indian Medicine-man, trying to cure her disorder by directing his energies to overcome the supposed cause of her disease. My diagnosis was tubercular pleurisy with effusion, but my Indian confrere had diagnosed possession by an evil spirit, and as he was in charge of the case, I could only look on. Each woman, with a stick in either hand, was beating on a piece of wood before her, making as much noise as possible, and adding blood-curdling explosives to the incantations of the Medicine-man, in a vain endeavor to drive out, to scare out, the possessing spirit. But unfortunately this kind comes not forth by such rude wooing. And so, from the gray dawn of time, down to what we imagine is the mid-day splendor of to-day, such forms of practice have persisted through all the ages.

But let us not imagine the air clear yet ; the fog is only getting thinner. In other times the sun has attempted to shine through. Five hundred years before Christ, Hippocrates broke away from the old traditions of healing, the supernatural methods, and laid the foundations of medical science on experience, observation and reasoning. Later his teaching influenced the school of Alexandria, where positive knowledge was developed by the adoption of anatomic studies ; and centuries later, under Moslem patronage, the medical sciences reached their highest development in the Middle Ages. But Europe was less fortunate under Christian influences. There was a return to the belief in the supernatural origin of disease, and in the practice of supernatural methods to combat it. Retrogression prevailed over progression. Still believing in demoniacal possession, the various phases of exorcism were practised, even combined with such practical methods as the following : "To disgust the demon with the body he was tormenting, the patient was made to swallow or apply to himself unspeakable ordures, with such medicines as the livers of toads, the blood of frogs and rats, fibres of the hangman's rope, and ointment made from the body of gibbeted criminals." For myself I would prefer the simpler methods of the British Columbia Medicine-man. Cures effected by relics, by pilgrimages and sacred observances obscured the horizon, while even the Divine Right of Kings gave the world the blessings of the Royal touch for King's Evil. All these practices were injurious to the development of medical science, for "why should men seek to build up scientific medicine and surgery when relics, pilgrimages and sacred observances, according to an overwhelming mass of concurrent testimony, had cured hosts of sick folk in all parts of Europe?" But finally the tide turns. The discoveries of Galileo, Kepler and Newton had their reflex on the sister science of medicine, and investigators made bold to pry into the secrets of life and learn her vital processes, to seek the true causes of disease and endeavor to find the cure. Relapses have occurred. As fanatics opposed the introduction of the fanning-mill because in infringed upon the divine prerogative, which furnished the wind to winnow the wheat from the chaff, similarly, opposition arose to the introduction of inoculation, vaccination and the use of anesthetics. And as supernatural agencies were invoked to cure diseases supposed to be of supernatural origin, so to-day we have the various sects of faith-healers, magnetic healers and what not.

But, as Carlyle says, "Only what is true will persist. Out of the merciless fire of modern criticism truth, like asbestos, will come forth purified ; but vain theories, gaseous, will be dissipated among the waste winds forever."

But where do we stand to-day? Have the fogs all lifted and do we now see clearly? Unfortunately not. Investigators to-day are not numbered by tens but by hundreds, pursuing many diverse threads of thought, and giving to the world their conclusions, fully formed or immature, probable for fantastic, relevant or irrelevant.

The search for the causes of disease still continues as actively as ever, but disappointments are far more numerous than successes. Concerning sarcomata, Stimson, in this month's *Annals of Surgery*, says: "We are absolutely in the dark as to etiology, and no further advanced in prognosis and treatment than were our colleagues a quarter of a century ago."

Dr. Snow, Chief of the London Cancer Research Committee, has come to almost identical conclusions regarding carcinoma. As regards these two classes of diseases, we are, therefore, forced to be content, at present, with increased ability to diagnose them, and have to thank the surgeon largely for the groundwork of this advance.

In 1882 Koch proved tuberculosis to be due to a specific bacillus, and in 1890 startled the world with the announcement of a cure. We all remember the reaction, the tremendous disappointment, felt not only by the laity, but even more keenly by ourselves, when slowly, unwillingly, we were forced to admit that our expectations were not realized. Early in 1903, Behring delivered a lecture before the Vienna Medical Society, detailing his experiments on animals with his own special serum, and speaking very hopefully as to the future. Perhaps he, who with Roux, discovered in diphtheritic antitoxin the greatest remedial agent of recent times, will unravel the puzzle.

More recently, Marmorek, of Paris, has staked his great reputation by giving to the world the results of his labors in a new serum, and we can only trust that time will prove that it possesses some definite value. Later still, that our professionally agnostic brethren may not starve for want of food, an Italian professor has enunciated that Koch's tubercle bacillus is not the cause of phthisis, but rather an uncouth octapoid micro-organism of his own finding. Well may the general practitioner raise his hands in despair and wonder what he can believe.

But experience has shown that in tuberculosis, as in other things, prevention is better and surer than cure. Statistics are piling up year by year, adding proof where now none is needed, that, recognizing tuberculosis as an infectious disease and treating it accordingly, a definite gain can be recorded. Education of the public has already advanced so far that more positive steps should be enforced. Compulsory notification, as in other infectious diseases, proper disposal of infected excreta, disinfection of infected dwellings, etc., should be rigidly carried

out, and the same positive results would be attained throughout the country at large as already obtain in the few places far advanced enough to follow this self-evident line of action. A resolution should be passed by the present meeting, urging the various Provincial Governments to introduce the necessary legislation, and I venture to affirm that, coming from so influential a body of scientists, the suggestion would be adopted. And, if adopted, as I have already said, the educated sentiment of the public would not obstruct, but rather would uphold the action of the authorities. Perhaps this body has already taken such action, but until the various authorities have adopted the suggestions, I consider it the duty of this Association to yearly reiterate the advice. Then finally will begin an era of diminution, until, as some of our more optimistic brethren affirm, fifty years will see the extinction of the Great White Plague.

Councilman's pronouncement as to the causative agent of variola still remains unchallenged; while more recently Mallory, of Boston, has described a protozoan which he has named cyclaster scarlatinalis, and which, he believes, has a causal relation to scarlet fever. In the winter of 1902-3, Mosher, of the Kinderspital in Vienna, announced the discovery of an anti-scarlatinal serum prepared from a coccus constantly found in the throats of subjects of that disease. His statistics, covering several hundreds of cases, both mild and severe, were, as such statistics usually are, certainly favorable; but he failed to prove his coccus as the cause of the disease, and the consensus of opinion inclines to believe that the favorable results were due to the combatting of the influences of a mixed infection. The same favorable results can also be obtained by the use of antistreptoccic serum, which reagent, in other forms of infection, has not the wide use among the profession that its virtues demand.

To turn to another field, where surgery and medicine meet, we find that some definite progress has been made. Numerous operations on the stomach have shown that ulceration is more common there than formerly suspected. The physician of to-day must not expect to find all the classical symptoms, for we can have ulceration without pain as we also can have it without hemorrhage. Brilliant results have been obtained in most inveterate cases, by operative methods, results such as medicine has not afforded. Under these circumstances, we have the added responsibility of advising some of our patients to submit to the risks of an operation, a responsibility which will often tax our courage to the utmost, but which we, as true men, should not shirk when the occasion arises.

In diseases of the biliary tract, surgery has also disclosed

many new features. The post-operative biliary fistula, in cases of obstruction of the common duct, affords a positive means of correctly estimating the quantity and quality of the bile. The use of cholagogues has an established place in our practice, but now our faith is rudely shaken. Although the term cholagogue has been in use for more than two thousand years, and is, apparently, as firmly seated as the everlasting hills, recent investigations have caused it to tremble, and it may eventually disappear as did many a mountain in some prehistoric cataclysm. Mayo Robson, in estimating the effects of certain so-called cholagogues, found that the old reliable calomel caused a diminution instead of an increase in the flow of bile. Enonymin gave the same result, while rhubarb and podophyllin, turpentine and benzoate of soda gave negative results. His conclusion is: "The supposed cholagogues investigated seem to rather diminish than increase the amount of bile excreted." Perhaps the most of us feel like saying as the fox to the grapes, "We did not think they were much good, anyway."

As regards cholelithiasis we have also learned a great deal, and have had to revise our views as to etiology, and must consider the typhoid bacillus and the bacillus coli the primal cause for the majority of the cases. The French school go so far as to affirm that, without infection at some stage of the disease, we will not have cholelithiasis. Legars says: "The infectious origin of biliary lithiasis is proved, for the following reasons: If we have shown that gall-stones do not depend on general and obscure humoral conditions, but on a local infectious process, the disorder becomes for the most part also a local matter, and as such, accessible to direct local means. If the calculi are once formed, they increase and multiply, and we can still be sure that they are due to a single attack of lithogenous infection. At a given moment, microbian invasion of the gall-bladder took place, and these microbian invasions, of intestinal origin, depend on various causes and may occur in the course of different acute disorders: at any rate, the calculous disorder comes from this primordial lithogenous cholecystitis. Once more, it is a complaint of the gall-bladder and ducts, not of the bile, and lithogenous cholecystitis is comparable to many other localized infections, such as appendicitis, for instance. By removing the calculi, or the gall-bladder, recovery may be complete and final. Finally, we find infection not only at the origin of lithiasis, but also at all stages of the disorder; it is the leading factor of the various complications as well as of the prognosis of the complaint."

Deaver says: "It can be emphatically stated that gall-stones are always the result of precipitated salts and tissue debris, following in the wake of bacterial infection, mild or severe in degree.

Furthermore, the complications of chronic gall-stone disease, adhesions, ulceration, fistulæ, liver and pancreatic disease, are also due to infection." He also says: "The treatment of chronic gall-stone disease, its complications and sequelæ, can only be surgical. Gall-stones are formed through the aid of infection, and therefore the disease is local and requires local treatment, that is, operation, and not solvents or cholagogues to relieve a condition resulting from faulty metabolism."

Therefore, the same application can be made here as was made in reference to gastric ulceration. We should realize the impotence of medicines. Solvents do not dissolve, and the old treatment was merely that of temporizing, with the hope that Dame Nature would aid our misguided efforts by expelling the offending bodies through the natural passages. Such expectancy is often dangerous. Surgery holds out a positive cure in a large proportion of cases, but too many of us fear the responsibility, of advising such radical treatment, and our patients suffer from our timidity.

Let us now return to a consideration of the work being done by our great army of investigators. In reviewing their work, not only that of the past year, but of recent years, we see labor multiplied, mountains heaped on mountains in the attempt to scale the heights of the unknown, until, considering the results attained, we might be forgiven for inquiring, "What avails so Titanic a struggle?" The causes of disease are so intricate that they are reached only after ages of scientific labor. Yet a few successes have made us impatient of the coming of complete victory. Some successes have proved to be stars of the first magnitude, others but the smallest flint sparks to illuminate the truth, whilst many so-called discoveries have given no more light than when wax is struck on wax, idle theories, thoughts written on the brain, and now, let us hope, rubbed out forever. Looking at the workers as constituting an army, one searches in vain for a controlling spirit, one which will concentrate the tremendous and apparently never-tiring energies of this mass of workers into a well-directed assault on some stronghold of the unknown. Modern investigators are, to quote a phrase of Carlyle's, "like a hapless servant gone masterless, unfit for self-guidance." To give an idea of the varied subjects being studied, let me quote the titles of a few of the papers published during the year in but one publication, *The Journal of Medical Researches*: "On the Appearance and Significance of Certain Granules in the Erythrocytes of Man," "The Influence of Certain Bacteria in the Coagulation of the Blood," "The Relation of Specific Gravity and Osmotic Pressure to Hemolysis," "The Bacteriolytic Complement Content of Blood Serum," "The Agglutination of the Pneumococcus with Certain Normal and Immune Sera," "Cat's Blood: Differential Counts

of the Leucocytes," "A Study of the Agglutinating Hemolytic and Endothelialitic Action of Blood Serum in Variola," and so on. I do not wish to speak slightingly of the labors which these titles of so diversified investigations portray, but I do affirm, that if the workers of some one strong school were under one sole control, their campaign planned against one enemy, and their work properly correlated, more progress would be made in a given time than by the independent, uncorrelated work of all the schools combined.

Such a view is perhaps too Utopian. The world will "gang its ain gait," and our workers will continue to work as before. Truths will gradually be unfolded and science will be developed in the medical field as in the other realms of science. As Marconi did not have to wade through all the drudgery of elaborating the data he needed but utilized the work of others in perfecting his discovery; as Roentgen needed to win but a single step in advance of others in the race to gain the palm, so, too, can we confidently look forward to the appearance of a master from among our members, one who, building with the bricks made by others, will erect the edifice of truth containing the key which will unlock the secrets of nature and give us command over our most illusive foes. We all feel that that day is near at hand, and when it dawns we will join unselfishly, without a trace of jealousy, in crowning that master with the everlasting laurel.

THE SURGICAL TREATMENT OF COMPLETE DESCENT OF THE UTERUS.*

By E. C. DUDLEY, M.D., Chicago.

Complete descent of the uterus, descent to the third degree, which may be defined as that deviation in which a part or the whole of the uterus is outside of the vulva, is always associated with extensive injury to the pelvic fascia, the pelvic connective tissue, the muscles of the vaginal outlet, the perineum and the vaginal walls; in fact, these injuries of the pelvic floor constitute the essential lesion, the mal-location of the uterus being an incidental factor.

The uterus in its normal position lies across the pelvis, the fundus pointing in a slightly upward anterior direction, and the external is in a slightly downward posterior direction. The long axis of the uterus in this normal direction makes an acute angle with the long axis of the vagina, which extends from the vulva upwards and backwards in the direction of the hollow of the sacrum. Generally speaking, mobile anteversion with some degree of anteflexion is the normal position of the uterus; at any rate, the uterus in its normal range of movements does not deviate, unless temporarily beyond the limits of a certain normal anteversion and anteflexion.

In the etiology and treatment of descent the practical significance of this acute angle between the axis of the uterus and vagina is very great, because the uterus in the act of prolapse must descend through the vaginal canal in the direction of that canal, that is, a coincidence of the two axes is a pre-requisite of descent. Now, if the essential condition of descent is a coincidence of the axes, it follows that one factor, at least, in the treatment of descent must be to restore the normal angle between the axes.

In labor the anterior wall of the vagina is depressed, stretched and shortened by the advancing child that during and after the second stage the anterior lip of the cervix uteri may be seen behind the urethra. This location of the cervix—so close to the anterior wall of the pelvis—necessarily involves great stretching of the utero-sacral supports which normally hold the cervix uteri, and together with it the upper extremity of the vagina close to the hollow of the sacrum. This function of the post-uterine ligaments having been temporarily impaired, the upper extremity of the vagina is displaced forward, so that the uterus, having sufficient space between itself and the sacrum, instead of maintaining its normal anterior position, may fall backward

*Read at Meeting of Canadian Medical Association, Vancouver, B. C., August, 1904.

into retroversion and thereby bring its own axis into line with the direction of the vagina. Frequently the change in the direction of the vagina from the normal oblique to the abnormal vertical is still further increased by injury to the vaginal outlet; the perineum may be torn in any direction, and what is more serious, it may be torn away from its pubic attachments and in this way may be displaced backwards towards the tip of the coccyx: in fact, such displacement is so common, as the result of injuries to the perineum, as to suggest the propriety of a change in terminology from laceration to displacement of the perineum. The upper extremity of the vagina being displaced forward and the lower extremity backward, and the direction of the over-stretched, dilated vagina now being vertical, the heavy uterus, having its long axis in the same vertical direction, has all the conditions favorable to progressive descent.

If the puerperium progress favorably with prompt involution of the pelvic organs, and if the relaxed vesico-vaginal wall and other parts of the pelvic floor, especially the utero-sacral supports and the broad and round ligaments, recover their normal tone, then the whole pelvic floor, including the uterus, resumes its normal relations. But if the enlarged heavy uterus remains in the long axis of the vagina, and especially if the fundus uteri be incarcerated under the promontory of the sacrum, with the sacral supports stretched so much and for so long a time that they cannot recover their contractile power; and if normal involution of the pelvic organs be arrested, then descent may not only persist, but may progress with constantly increasing cystocele and rectocele until the entire uterus has extruded through the vulva.

It is most important to remember that complete prolapse of the uterus is only an incident to prolapse of the pelvic floor. The whole mechanism is that of hernia, and the condition is hernia, for the extruded hernial mass drags after it a peritoneal sac which, hernia-like, contains small intestines, This sac forces its way to the pelvic outlet and extrudes through the vulva, having the inverted vagina for a covering.

The prolapsing uterus may be related to the vaginal walls in either one of two ways: the prolapsing vaginal walls may drag the uterus down after it, or the uterus itself may descend along the vaginal canal by force of its own weight and drag with it the reduplicated vaginal walls. Extreme prolapse of the uterus, the organ being covered thus by reflected vaginal walls, has given rise to considerable confusion in pathology, and by many standard authors wrongly has been called hypertrophic elongation of the cervix uteri. In a given case, the possibility of infra-vaginal elongation may be settled easily by placing the patient in the knee-breast position, when the uterus of its own weight will fall toward the diaphragm and the reduplicated vaginal walls will un-

fold and utero-vaginal attachment will appear in the normal place instead of being, as it seemed to be, high up on the walls of the uterus. Those cases in which reduplication of the vaginal walls does not almost entirely explain apparent great elongation of the cervix, are rare exceptions. When formerly these mechanical conditions were attributed to hypertrophic enlargement of the uterus itself, and were regarded as adequate indications for the removal of the cervix, the surgeon, in the attempt to remove what he supposed was the elongated cervix uteri, sometimes invaded the bladder anteriorly and the rectus posteriorly.

Surgical Treatment.—In passing, it may be well to mention, for the purpose of condemning it, an operation perhaps more frequently performed than any other for the cure of complete descent, namely, the operation which generally passes under the name of Stoltz. This operation is designed to narrow the vagina, and thus to maintain the uterus somewhere in the pelvis above the constriction. Operations of this class usually consist of the removal of an elliptical piece from the anterior or posterior vaginal wall, or from both, and of closing the exposed surfaces by means of a purse-string suture. No effort is made to destroy the normal axis of the uterus and vagina. The whole purpose is to make the vagina so narrow that the uterus cannot pass through it. Such operations generally fail, because they leave the uterus and vagina in the same axis, and because the restricted vagina cannot resist the downward force of the uterus, which almost invariably dilates the vagina a second time and forces its way through with reproduction of the hernia. Moreover, the operation always does permanent harm, because it shortens the vagina, thereby making it draw the cervix away from the sacrum towards the pubes, so that the body of the uterus may have room to fall backward to the position of incurable retroversion. We may, without discussion, perhaps, throw out all operations belonging to the Stoltz group. The same may be said of all plastic operations in which the vaginal surfaces are exposed by superficial denudation and brought together by sutures.

After a prolonged trial of the principal surgical procedures which have been made use of for the cure of complete descent, I am prepared to lay down certain essential principles, as follows: An efficient operation on the vaginal walls should have for its object, not narrowing the vagina, but restoring the normal direction of it with a double purpose, so that (*a*) the upper extremity, together with the cervix uteri, shall be in its normal location within an inch of the second and third sacral vertebras, just where the utero-sacral ligaments would hold it if their normal tonicity and integrity could be restored, and so that (*b*) the lower extremity of the vagina shall be brought forward against the pubes. The fulfilment of these two indications will restore

the normal obliquity of the vagina, and will hold the cervix uteri so far back toward the sacrum that the corpus uteri must be directed forward in its normal anterior position of mobile equilibrium. With these conditions, the uterus being at an acute angle with the vagina and having little space posteriorly, cannot retrovert and turn the necessary corner which would permit it to prolapse in the direction of the vaginal outlet. In order to accomplish this, two things usually are necessary :

1. Excision of the Cystocele.

Anterior Colporrhaphy.—The plastic operations performed on the anterior and lateral walls of the vagina by Sims, Emmet, myself and others, which have consisted of superficial denudation and reefing of the anterior or lateral walls of the vagina, have been only partially successful, first, because they did not adequately force the cervix uteri into the hollow of the sacrum ; second, because efficiency requires deeper work than superficial denudation can accomplish, and third, because these operations did not utilize the broad ligaments sufficiently for support.

The above principles, emphasized by Reynolds in a recent paper, have led me to modify my own operation materially. Complete prolapse, being hernia, should be treated according to the established principles of herniotomy by reducing it and then excising the sac in such a way as to expose strong fascial edges, which should be firmly united by sutures. The absurdity of treating any other hernia by superficial denudation and reefing or tucking in the surfaces by sewing them together must be apparent to any one. In order to indicate the part which the broad ligaments must have in a correct operation, it is only necessary to observe the fact that vaginal hysterectomy commonly results in holding up the pelvic floor and with it the rectum, vagina and bladder, because in this operation the broad ligaments are usually fixed to the vaginal wound. But why should not the same result be aimed at by similar means, even though the uterus is not removed ? The operation which I would urge is performed as follows :

First Step.—To split the the antero-vaginal wall—that is, the vaginal plate of the vesico-vaginal septum—by means of scissors, from the cervix uteri to the neck of the bladder, then to strip off the vaginal from the vesical layer of the vesico-vaginal wall and cut away the redundant part of the vaginal plate.

Second Step.—The redundant part of the vaginal wall having been removed to extend the incisions and remove the mucous and sub-mucous structures to either side of the uterus, being sure to reach the fascial structures, which are in direct connection with the lower margins of the broad ligaments, or, what is better, to reach the ligaments themselves.

Third Step.—To introduce silk worm gut or chromic catgut sutures so that when tied they will draw the loose vaginal tissues and the broad ligament structures on either side of the cervix uteri in front of the cervix so as to force the cervix back into the hollow of the sacrum.

Fourth Step.—The sutures introduced in the third step having been tied, additional interrupted sutures are introduced to unite the vaginal wound from side to side; this suturing is continued to a point near the urethra, when most of the redundant vaginal wall will have been taken up; there will usually remain however, the lower portion of the cystocele and perhaps some urethrocele, which cannot be disposed of by bringing the margins of the wound from side to side, but can be taken up by uniting the remaining part of the wound in a transverse direction.

Even at the risk of prolixity I repeat that it is essential to remove the entire thickness of the vaginal layer of the vesicovaginal septum.

Contraindications to Elytrorrhaphy.—Elytrorrhaphy is usually unnecessary, and therefore contraindicated in descent of the first degree. The special province of the operation is in complete prolapse or procidentia when associated with cystocele. The operation further is contraindicated by tumors and adhesions which render replacement and retention impossible, and in diseases of the uterus or its appendages, which demand their removal. When such contraindications do not exist, elytrorrhaphy and perineorrhaphy in a majority of cases are quite as effective, and therefore to be preferred to the more dangerous and mutilating operations of hysterectomy.

2. Perineorrhaphy and Posterior Colporrhaphy.

As already stated, it is most important to appreciate the fact that in nearly every case of procidentia the lower extremity of the vagina is displaced backward. This is consequent upon subinvolution of the pelvic floor, and especially upon subinvolution or rupture of the perineum or of some other portion of the vaginal outlet. Unless, therefore, the posterior wall of the vagina and the perineum can be brought forward to their normal location under the pubes, so as to give support to the anterior vaginal wall, the latter will fall again, will drag the uterus after it, and the hernial protrusion (cystocele and prolapse) will be reproduced. The treatment, therefore, of procidentia must always include an adequate operation on the perineum, or, more comprehensively speaking, upon the posterior wall of the vaginal outlet. The operation must be performed so that it will carry the lower extremity of the vagina forward to the normal location close under the pubes; then, if

the anterior colporrhaphy has been adequate, and has carried the upper extremity backward, the whole vagina will have its normal oblique direction, and its long axis will make the necessary acute angle to the long axis of the uterus.

Hysterectomy, if indicated, should be performed by the vaginal route. As an operation for procidentia, hysterectomy is open to the following comments: Procidentia, as already shown, is hernial descent, not merely of the uterus, but also of the vagina, bladder and rectum. Complete prolapse often occurs after the menopause, when the uterus has become an insignificant rudimentary organ, and therefore may be removed easily. Cases are numerous in which, after vaginal hysterectomy, the pelvic floor, and with it the vaginal walls, have protruded again through the vulva—a result which may be expected unless the operation has included anchorage of the upper end of the vagina to its normal location by stitching the severed ends of the broad ligaments into the wound made by removal of the uterus. The indications for perineorrhaphy as a supplement to hysterectomy are the same as after anterior elytrorrhaphy.

As laid down in the foregoing paragraphs, the utilization of the broad ligaments is the essential factor in the treatment of complete procidentia. The operation of elytrorrhaphy, above described, unfortunately either may fail to bring the lower edges of the broad ligaments sufficiently in front of the uterus to enable them to hold up the uterus and vagina, or the ligaments having been stitched in front, the stitches may not hold. Consequently, in complete procidentia, elytrorrhaphy, even though well performed, may fail; at least, this has been my experience in a number of cases. Therefore, the completely prolapsed uterus may have to be removed in order to secure the entire outer ends of the broad ligaments to the upper part of the vagina, and thereby give absolute support. As before stated, the operation should include the treatment of the hernial factor in the lesion, that is, removal of the redundant portion of the anterior vaginal wall. Generally speaking, the indications are somewhat as follows:

1. Extreme cystocele, not associated with the most extreme procidentia, should be treated by anterior colporrhaphy and perineorrhaphy.

2. Cystocele associated with complete procidentia properly, may be treated by hysterectomy, anterior colporrhaphy and perineorrhaphy. Anterior colporhaphy in all cases.

3. Conditions intermediate between the two conditions indicated above, and cases of very feeble or very aged women, will call for special judgment whether hysterectomy be omitted or performed. It is, however, a fortunate fact that the completely

prolapsed uterus, even in aged women, is removed usually with ease and safety.

Other Operations of Questionable Value.—Other operations, designed to decrease the weight of the uterus by removal of it, are of questionable value. Amputation of the cervix to lighten the weight of the uterus has been practised much for the spurious hypertrophic elongation already described. Since this condition is rare, if not indeed unknown, it follows that it seldom will furnish an indication for amputation of the cervix uteri.

Alexander's operation and abdominal hysterorrhaphy belong to the surgical treatment of retroversion and retroflexion, not of procidentia. The object of these operations is to suspend the uterus from above. Hysterorrhaphy, which perhaps fulfills this indication better than shortening the round ligaments, may be indicated in cases of extreme relaxation of the uterine supports and greatly increased weight of the uterus. The results of it in complete procidentia, however, usually will not be permanent unless it is supplemented by adequate surgery to the vagina.

EXPECTANCY OF LIFE IN MORBID CONDITIONS OF THE CARDIO-VASCULAR SYSTEM.

By ROBERT J. DWYER, M.B. (Tor.), M.R.C.P. (Lond.)

Lesions of the cardio-vascular system, met with in the course of life insurance work, present much more difficult problems in prognosis than when met with in the consulting-room, or at the bedside. In the latter, indeed, the prognosis is usually a comparatively simple matter, the condition having advanced to stages characterized by abundant signs and symptoms which form ample data upon which to base a forecast. In the former, however, the disease is usually incipient, or latent signs being few, and symptoms scanty or absent. Again, when the subject presents himself as a patient, he does so with a frank and open mind, willing and anxious to give all the information he can in order to obtain relief. When the object, however, is life insurance, this aid is often denied us; owing either to ignorance, or it may be unwillingness on the part of the applicant.

Therefore, it follows that the utmost attention must be given to the diagnosis, and the most careful judgment brought to bear on every case of cardiac disease in which an application for life insurance is sought. The problems before an examiner in every such case are first of all to determine whether the heart is performing its function properly at the time; if so, at what cost to itself, and from this and other circumstances shortly to be mentioned, to say how long this will probably continue. In order that a satisfactory answer to these questions may be obtained, not alone must the condition of the heart be ascertained by the conscientious application of all the routine methods of examination, but the general condition of the patient must be noted, and a searching inquiry made into his family and personal history.

Among the most important, because most frequent, cardiac conditions upon which medical examiners have to give an opinion, are the various valvular lesions. It is proper, therefore, that we should primarily turn our attention to the consideration of these conditions. Few morbid changes in the body give such striking evidence of their existence as a valve lesion with its attendant murmur. Indeed, so impressive and so valuable is this sign as a means of diagnosis, that unless upon our guard we may give it undue importance in prognosis. In other words, in making a prognosis, to regard the sign rather than the condition. Formerly, when all cases of cardiac murmurs were rejected by life insurance companies, this was not a matter of so much importance. Now, however, that a certain percentage of such cases are rightly admitted to life

insurance, it is a matter of great importance to be able to identify and separate this group from those who are not admissable.

This identification is to be made not by regarding merely a given murmur, but by careful consideration of many other circumstances. Murmurs, indeed, have but a limited value even in diagnosis. They may be present when no valvular lesion exists, or again may be absent in severe valve lesions.

Even when denoting the existence of a valvular defect, they form little or no measure of its severity. From the standpoint of life insurance we may divide all cases of valvular disease into three classes:

1. Those in which the only evidence of a lesion is the presence of a murmur.

2. Those in which, in addition to the murmur, other signs, such as hypertrophy, or modification of the normal sounds are found.

3. Those which, in addition to the foregoing, present symptoms, such as dyspnea, cyanosis, etc.

The last group may be dismissed at once, for already terminal symptoms are present, and with few exceptions, life will terminate in three or four years.

Many of those in the first two groups, however, have a brighter outlook before them, and there may be found a few good risks, some fair and more impossible.

In order to decide in which class a given case should be placed, it will be necessary to direct careful attention to the following points:

1. The nature of the lesion.
2. The age of the applicant.
3. The cause and duration of the lesion.
4. General physical condition of the applicant.
5. His personal history.
6. His family history.

Taken in the order of severity, the greatest valvular defect is aortic regurgitation, then comes in order mitral stenosis, aortic stenosis, and lastly, mitral regurgitation:

Aortic regurgitation may be practically excluded from consideration. From its general tendency to increase, and the danger of sudden death, it is a condition too formidable to be considered as a justifiable risk for insurance. Clifford Allbutt says that ten years is a long period for this lesion. Broadbent, however, speaks more hopefully, and says that with the second sound heard in the carotid, and with hypertrophy slight, such a lesion, resulting from a rheumatic attack, may exist for many years without giving rise even to discomfort.

Such cases, however, are the exception, and the lesion, if

established early in life, will probably terminate the latter, shortly before middle age is reached.

Where the lesion develops later, as the result of degenerative changes, the prognosis is much worse; at the most two or three years will be the duration of life.

The same is true when it is the result of syphilis or excessive physical strain in early manhood.

Mitral Stenosis.

Here also we have a valve lesion, essentially so grave that very few, if any, of its victims would be accepted by life insurance companies on any terms.

The average duration of life for those suffering from this lesion is 33 years for men 35 or 36 for women.

The gravity of the lesion is the result of the inherent tendency to increase in severity, and its intimate relationship to the pulmonary circulation, whereby any attack of bronchitis or pneumonia injuriously affects the already embarrassed right heart. Exceptions, however, occur to this rule.

Quite recently I performed an autopsy on the body of an aged woman, dead of pneumonia. She was upwards of seventy years of age, and had for some time suffered from paralysis agitans. On examining the heart, the mitral orifice was found to be markedly contracted, due to thickening and adhesion of the mitral flaps. Such examples, however, must be rare.

In connection with mitral stenosis, attention may be called to its occasional latency and consequent difficulty of diagnosis. When accompanied by its characteristic presystolic thrill and murmur at or near the apex, with its peculiar snapping first sound, it cannot be mistaken; but in this lesion, more than any other, the murmur is notoriously variable.

In some cases it may be at times entirely absent, and if we relied upon the presence of a murmur to make the diagnosis, the condition would be overlooked. In such a case a hint would be given by the characteristic first sound. If with such a first sound the area of cardiac dulness was found to be increased upwards and to the left, along the third rib, and the pulmonic second sound was found to be accentuated; if with these signs there is any pulsation to the left edge of the sternum, it would be justifiable to suspect the existence of mitral stenosis, and this suspicion will be strengthened if there is the slightest indication of cyanosis or breathlessness.

Aortic Stenosis.

If all cases presenting a systolic murmur, heard at the second right interspace and transmitted up over the sternum into the

neck, are to be called aortic stenosis, this lesion will be found to be not alone the most common but the most harmless of all cardiac diseases. But it is found that the large majority of cases in which this murmer is present have no narrowing of the aortic orifice. The causes which produce this murmur, apart from aortic construction, are blood conditions giving rise to the hemic or functional murmur; roughening of the valve cusps either from endocarditis, or deposit of lime salts; more rarely, congenital fenestration of the valve may give rise to a murmur, and, lastly, dilatation of the aorta itself may cause a murmur similar to that of aortic construction.

Excluding those in which the murmur is due to some blood condition and which are, therefore, of no importance in prognosis, and also those in which the lesion is dilatation of the aorta and where the prognosis is, therefore, very grave, there are still many cases which would be eligible for insurance, either as fair or doubtful risks.

It is in this class of cases that we must carefully consider the different points previously mentioned. Of great importance is the cause of a given defect in the valve. Rheumatic endocarditis is the most favorable. Syphilis and degenerative changes are very unfavorable causes, and should lead to the rejection of the applicant, not on account of the valve lesion alone, but on account of the attendant conditions. The age of the applicant is also of importance. If at or before the middle of the third decade, provided syphilis is excluded, the lesion is probably due to rheumatism, and is, therefore, favorable. In the fourth decade, or later, degenerative changes may be suspected.

Generally speaking, too, the longer the duration of the condition, as conjectured from the attack of rheumatism, the greater probability is there of it being stationary, and, therefore, favorable.

The condition of the heart, apart from the murmur, should be most carefully ascertained. The presence or degree of hypertrophy will form a measure of the severity of the obstruction. The less hypertrophy the less severe the lesion. If with little or no hypertrophy there is a loud and long murmur, no increased tension of the pulse, and no change in the first sound at the apex, we may conclude that the lesion is unimportant.

Where, however, hypertrophy is pronounced, and the apex beat is markedly displaced downwards, the lesion is more severe and the outlook not so favorable. Further attention must be given to the applicant's personal history; his occupation, habits and social condition must be taken into consideration. Finally, his family history will be of importance. Absence of gout or renal disease will be favorable, while the history of these and a family tendency to early death will be unfavorable. While the

average age of death from this disease is placed at forty, a fair number may go for several years longer. Once, however, symptoms of cardiac embarrassment have arisen in this disease, even in the earlier adult life, the prognosis is decidedly unfavorable.

Mitral Regurgitation.

This lesion is not alone the most common, but is the least grave of all the valve lesions. In giving a prognosis the same considerations must be born in mind as were spoken of in the previous lesion. The large majority of cases result from rheumatic endocarditis. Following this, degenerative changes, such as calcareous deposit and dilatation of the left ventricle from myocardial conditions, are causes to be born in mind. Where the lesion is the result of endocarditis, and where the leakage is moderate in amount, as shown by the position of the apex at or just without the nipple line, and when from its duration it is probably stationary, the prognosis is good and life will be prolonged into old age.

Even when in addition to all the physical signs of the lesion being present, there are also symptoms of cardiac failure, such as cyanosis and dyspnea, recovery may take place, and the patient live for many years in comfort.

When the lesion is due to dilatation of the ventricle, causing a relative incompetence, the prognosis will depend upon the cause and the age of the patient. If due to some acute condition, such as typhoid fever or diphtheria, or if occurring in the course of anemia or alcoholism—if it be in early adult, or even later life, complete recovery is often possible.

If however, the dilatation is the result of coronary arterial disease, a lesion of middle life, the prognosis is very unfavorable.

Many cases of mitral systolic murmur, occurring at or after middle life, may exist for upwards of twenty years without change or discomfort. In such cases the murmur is due to roughening and thickening of the valves, the actual leakage being little or none. Here the prognosis depends, not so much on the valve condition, as upon the attendant conditions, viz., general arterio-sclerosis.

In all cardiac valve lesions, no matter of what variety or degree of severity, particular attention must be given to the character of the pulse as regards its tension and frequency. A high pulse tension is, in many individuals and families, a constant condition, even in the absence of any pathological change. Should a valve lesion develop in such an individual, the prognosis would be much less favorable than in an individual with a pulse of low tension, for with high pulse tension the heart will be less able to overcome the valve defect, or having done

so, will break down much earlier. To a less degree the same may be said of one whose pulse rate is habitually much above the average.

By a careful consideration of all the facts in each case, as above indicated, there is no doubt that a considerable number of those possessed of some of the valve lesions could with safety be insured.

In this connection it is to be borne in mind that little must be known of the length of the latent period in many of the subjects of valvular affections. By the latent period one means the length of time elapsing between the establishment of the lesion and the onset of cardiac breakdown.

Observations of the first event are common enough, occurring, as it does, in an attack of rheumatic fever or other acute disease, but it is only when the second event occurs that the case is again brought to notice, and the duration of the condition can be thereby determined.

Just what percentage of cases, in which a valve lesion once established never gives rise to any symptoms throughout a long life, is unknown. An appeal to the post-mortem records of hospitals will not give an accurate answer, for an undue proportion of such subjects are the victims of poverty and of vicious habits; conditions which would not apply to the class of persons able to buy life insurance. Every physician, however, of experience has knowledge of cases where, notwithstanding the existence of some valve lesion, which has probably been present for a long period, no inconvenience has resulted, and life has been ended by causes quite apart from the cardiac defect.

In this connection the following brief outline of a case, under my observation, may be of interest:

Six years ago, a farmer, aged 33, consulted me for some dyspnea, precordial distress and rheumatic pains. His family were rheumatic, and his father had died about the age of sixty of some cardiac condition. He himself had had two attacks of rheumatism; the first one fourteen years previously: the second two years previously to the time I saw him. In both attacks had suffered "pain in the heart." At the time I first saw him he was disturbed by various subjective complaints, as he was markedly neurotic.

The cardiac condition was of great interest. He had a loud, high pitched, musical diastolic murmur, which he himself could hear quite distinctly. It was heard from the second rib on the right side down the sternum, and out almost to the nipple line. The pulse was soft and a capillary blush in the fingers and the forehead. The heart was not enlarged, and the impulse did not indicate hypertrophy. The rhythm and site of the murmur pointed to aortic regurgitation. I have seen him at intervals

ever since. One year ago the murmur could hardly be detected, then only on exertion, or on taking a full breath. For the past six months it has been entirely absent. In every respect the heart and blood vessels are absolutely normal. There is no increase of the pulse tension, or of cardiac dulness, or strength of impulse, such as might signify the possible transition of a regurgitant lesion to a stenotic one.

As he is at present, one unacquainted with his past history would, without hesitation, admit him to life insurance on the usual terms. This case is all the more interesting in that the lesion was the most serious of all the valve lesions, viz., aortic regurgitation.

To conclude, I might cite a number of cases which I have been watching for years, subjects of mitral disease, and in whom there have been, as yet, no evidence of cardiac embarrassment.

REPORT OF A CASE OF DOUBLE OTITIS MEDIA, WITH MASTOID INVOLVEMENT.—OPERATION AND TERMINATION IN FATAL PURULENT LEPTOMENINGITIS.*

By Dr. J. D. GIBB WISHART, Toronto.

Dougal Bell, referred to me on Sunday, January 10th last, by Dr. W. J. McCollum, had suffered from an attack of la grippe three weeks previously, followed by pains and discharge from both ears at the same time. The discharge had been free and odorless, and the usual treatment had been pursued, but without relief of the pains.

The patient was a workman of somewhat slight build, 51 years of age, but apparently over sixty, pale, anxious, and very deaf. He stated that he had suffered from shooting fugatory pains in the head, for the most part radiating from both ears to the vertex, but not continuous, while the ears felt full and the tinnitus was persistent on both sides. The amount of discharge had been keeping about the same, although he was faithful in the use of the syringe, which he thought made the canals very sore.

Examination showed a fairly abundant discharge from both middle ears, issuing from very small perforations behind and below the umbo in each. The bony walls were not puffed, but were pale and profoundly sensitive, especially along the posterior walls. This sensitiveness did not seem to correspond with the other conditions present. Externally, beyond a slight tenderness toward the apices of the mastoid processes, there was an entire absence of swelling, tenderness, redness, or pain on deep pressure or percussion. Hearing for the watch was nil, and for the voice very poor. The nasopharynx was subacutely inflamed.

Next day, under chloroform, which he took very badly, an opening was made through the membrane on both sides by a sweeping incision through the posterior circumference for about one-third, close to the ring. Frequent syringing of the ears, and daily applications of a 1-40 carbolic solution, with tonics and nourishing diet were prescribed.

The patient visited the office on the 17th of January, when the general conditions were found to be about the same, but the pains were not so severe, and the drums were well opened, and discharges muco-purulent and sweet.

On the 21st of February Mr. Bell returned, on the advice of his physician, complaining that he was no better, quite as deaf as before, and frequently awakened from sleep by the pains in his head. On this occasion I found that the openings in the membranes were much smaller, the discharges, while easily removed, recurred persistently, the walls still hyperæsthetic,

*Read at meeting of Toronto General Hospital.

but the appearance of the parts otherwise just as before. Externally, there was still an entire absence of swelling, tenderness, redness, or pain on deep pressure or percussion over the surface of both mastoids. The slight tenderness at the point of the right mastoid tip was, if anything, increased, and it was to this side that he referred most of his fugatory pains. Vertigo, nausea, stiffness of the neck, and any symptoms referable to the eyes were also absent.

Believing that mastoid disease was the only explanation of the welling up of the discharges, and of the pains, I advised him to enter the General Hospital for the purpose of making an exploratory incision in the right mastoid at least. At the same time I had no well determined indication of the presence of this invasion of the mastoid, as the hyperæsthesia of the external auditory canals, without congestion or swelling, led me to undervalue the head pains.

Upon admission to the Hospital four days later, the temperature was 98° Fahr., pulse 78, and respirations 20. On February 25th, the operation was performed under chloroform. The right mastoid was opened with difficulty, the outer bone being eburnated, but when once this was pierced the whole of the process was found to be broken down, and was entirely removed, the lateral sinus coat being laid bare for three-quarters of an inch. The walls of the aditus were sound, and fluids were easily syringed through the wound and out of the canal. There was no evidence of disease of the tegmen tympani, and the sinus was healthy. Pus was not abundant, and considerable pale granulation tissue was found.

Finding the right mastoid so seriously involved, I at once determined to open the left while the patient was on the table. Here the outer bone was equally sound, but thinner, and the cavity of the mastoid even more extensively diseased than on the right. The lateral sinus was also exposed, but was apparently healthy, and there was no evidence of a path of invasion of the brain cavity.

Both incisions were stitched, the cavities being packed with gauze, of which the ends were left protruding through the lower angles of the wounds.

Pain was completely relieved, and healing proceeded in a regular, though slow manner, the temperature never rising above 99.6° Fahr., and alternating between this and 97.8° Fahr. during the whole of his stay in hospital, which he left on the 5th of April. The course of the temperature was, however, irregular, being highest in the mornings, and practically never failing to be above normal at some period of the day. The left ear stopped discharging early, but the right was more persistent, the discharge being rather mucous than purulent in character, and odorless. Repeated examinations with the probe failed to

detect any evidence that granulation was not proceeding evenly everywhere.

The week before his discharge, the patient had an attack of vertigo, almost falling to the floor of the bathroom, accompanied by marked nausea and some vomiting. The temperature and pulse were not affected, but the tongue was furred and the bowels sluggish. The eyes were examined with the ophthalmoscope by Dr. Trow, and the ears very carefully explored by me, without anything being detected amiss. The attack was ascribed to over-indulgence in a series of heavy meals, causing indigestion in a man accustomed to abundance of outdoor exercise.

On the twelfth day after his discharge I was again summoned to see Mr. Bell by his physician, and found that the day previous there had been a return of the vertigo, accompanied by headache, vomiting and some elevation of temperature. These latter had continued and increased until the patient became partially comatose and very restless. I found the pupils reacting very sluggishly, and unequally, face flushed, temperature 102° Fahr., respirations 20, pulse 88, soft and irregular in volume, but the patient roused himself somewhat in answer to my questions. He was at once removed to the hospital, where he rapidly became comatose and never regained consciousness. At the time of admission the deep reflexes were present but not marked, cremasteric reflex present. Pupillary diameter 3 m.m. in left, and 3.5 m.m. in right. Babinski's sign absent. Urine was reddish yellow, specific gravity 1032, acid, clear with sediment, urea 4 per cent, excess of urates, no albumen or sugar. Widal's blood reaction was negative.

A consultation was held the day following with Dr. McDonagh, who agreed that no operative procedure was admissible.

The patient became steadily more comatose, quite hyperæsthetic, and on the 20th developed a somewhat spastic condition of the left arm and leg.

The temperature remained between 101° Fahr., and 102.5 Fahr., until the same day when it shot up to 105°, and became 106° just before death, which occurred April 21st, at 6.15 a.m.

The post-mortem examination was made the day following, and you have the brain before you for inspection. The right tympanic plate was softish, being easily penetrated by the point of the knife, the bone forming the roof of the aditus on its inner side, and of the inner ear was broken down, a small amount of pus being present. There was, however, no direct evidence of extension by necrosis to the brain at this point. On the left side the tympanic plate was firmer, although the inner appearances were not healthy.

The brain presented the typical characteristics of a purulent leptomeningitis, and no abscess was found.

There was no evidence of thrombi at any point, and the

condition of the organs and other structures presented no features of importance.

On looking over this case of failure the following points stand out prominently:

(*a*) The absence of the ordinary indications of mastoid involvement.

(*b*) The large amount of destruction discovered.

(*c*) The absence of indication at the time of operation of the extension of the process to the tegmen tympani.

(*d*) The peculiar character of the temperature during convalescence, and the absence of symptoms of extension till the onset of vertigo in the first instance.

(*e*) The mistake in accounting for the first attack of vertigo.

(*a*) Unfortunately, we have too many cases which, on the post-mortem table, point out the unsuspected cause of disease to have been located in the mastoid, and yet the operation is one which no one cares to advise without good evidence of the process being involved. This case gives a much needed lesson of the evil of delay. The presence of the flying pains, and the hyperæsthesia of the bony canals probably indicated an exploration of the mastoid at the time the patient was first seen by me. *Absence of pain, tenderness, redness and swelling in the mastoid do not indicate its freedom from disease.*

The manner of the discharge of the pus from the middle ear did not at any time alone indicate the necessity of surgical interference.

(*c*) Was the tegmen tympani involved at the time of operation? I presume it must have been, although my careful search failed to detect it at that or the later stages. The serious conditions found in the mastoid might have, perhaps, been my warrant for removing the posterior wall of the auditory canals, and the outer wall of the attics. My previous experience of many cases has not been such as to indicate this, however.

(*d*) Was the temperature of convalescence such as to warrant a further exploration without other evidence? It certainly was not a normal temperature, and yet I must confess it did not give me any anxiety. Had there been pain I would have been put upon my guard.

(*e*) The first attack of vertigo was wrongly put down to indigestion, and yet, although I was suspicious, still I fail to see that there was sufficient to indicate further exploration.

The whole case is one more instance of the great risk our patients run who suffer from attacks of middle ear inflammation as a complication of the grippe; and this year's variety has been unusually prolific of such involvement. Mastoid symptoms are never to be trifled with, and the sooner a diseased mastoid is drained the safer for all our patients, be the case chronic or acute.

Selected Article.

FEEDING AND THE REST CURE IN TYPHOID FEVER.*

By H. A. HARE, M.D.,
Professor of Therapeutics in the Jefferson Medical College of Philadelphia.

In casting about for a subject which would be worthy of attention this evening I confess that I have had some difficulty in deciding upon the theme which would prove most interesting. On the one hand I might bring before you certain questions which can only be decided by experimental research, and on the other it is possible to call your attention to equally timely, but more practical, subjects, which perhaps can be immediately utilized with advantage in practice. In addressing a body of medical men which possesses a wide clinical experience, obtained first in the wards of the Presbyterian Hospital, and secondly in private practice, one cannot help feeling that he occupies the position of one who comes to obtain information rather than to give it This is my attitude to-night, and if in the course of my remarks I touch upon subjects which seem to you hackneyed and already exhausted, you must recognize that they are themes which strike me as being of importance in my own experience in which perhaps you may be interested, and from which, in the discussion that I hope is to follow, I may perhaps gain much from the ideas which will be advanced by those who are first courteous enough to listen to me.

The first subject of which I wish to speak is that which deals with the question of the amount of food which should be given a patient suffering from typhoid fever at the three stages of his disease. I think that every one is agreed that during the first week of his illness the diet should be liquid, since at this time all portions of the body are apparently less able to carry out their functions in a normal manner than they are in the second and third week of the disease. In cases which have considerable severity at onset it has always seemed to me that the digestive system was more disturbed in the first few days of illness than later on. I am one of those who are firmly convinced that for many years we have been making a grave mistake in confining patients suffering from typhoid fever to a purely milk diet. This fact was borne in upon me forcibly about seven years ago when suffering from a prolonged attack of typhoid fever, which, while it was severe in many respects, particularly in its complications, nevertheless left my brain

* Read before the Alumni of the Presbyterian Hospital, New York, May, 1904.

during most, if not all, of the illness as capable of thought as it is at this moment. While I did not suffer from hunger in the sense of having an appetite, I was continually conscious of the fact that I was underfed, and I also knew that even when in health I could not take large quantities of milk with good results. When it came to the ingestion of considerable amounts of what might be called "hospital milk," I felt that I was receiving little more than water, and many hours of thought convinced me that on the one hand I was being attacked by the bacillus of Eberth, and that on the other my powers of vital resistance were being reduced by partial starvation.

Immediately after this I began giving those cases of typhoid fever which came under my care a varied diet of liquid and semi-solids, and since that time I have been greatly impressed at each term of hospital service by the advantages of this method of feeding. We must recollect that the average adult requires at least 2,500 calories a day for normal existence, and as each quart of milk represents only about 500 to 600 calories, it is evident that for a patient to receive the total number of calories required for the maintenance of his body he must drink not less than four and a half quarts of milk a day. These facts further impress us with the utter inadequacy of the pure milk diet in this disease. Nor can we help appreciating the fact that we are overloading the organs of absorption and elimination with an excess of fluid, which certainly cannot be advantageous, although, of course, an excess of liquid in typhoid fever is preferable to a lack of it.

Again, I can see nothing in the clinical history or pathology of this disease which in any way justifies us in disordering metabolism by the institution of a rigid single diet; and I doubt if there is a man in my audience who can go to bed for a period of a month or six weeks and receive an absolute milk diet for that period of time without emerging very much the worse for wear.

It is my custom to give all patients after the first week of typhoid from one to two soft-boiled eggs a day in addition to the ordinary allowance of milk, and to vary their diet by the use of curds and whey, rice which has been boiled to a pulp, barley, wheat, and oatmeal gruel, and a cup of corn-starch with vanilla or some other flavoring substance of a like character. As a result I very rarely see the marked ataxia which is so common a symptom in convalescence from typhoid fever. The patient's nutrition is so well preserved that he is but little more emaciated than many cases of acute pneumonia at the time of recovery. Secondary complications like furuncles and bed-sores are unknown, for by the use of a plentiful supply of food the patient's vital resistance is maintained to such a degree that simultaneous collateral infections do not take place. The

average case of convalescent typhoid fever is a fair mark for any infection because it is half starved.

Recognising that typhoid fever is characterized by a deficient secretion of digestive juices, all these patients receive hydrochloric acid and pepsin when proteids are administered, and taka-diastase and pancreatin when carbohydrates are used. I have never seen any bad symptoms arise as the result of this plan, and I am quite sure that I have seen an immense amount of good follow. I am not friendly to the use of beef tea, which I believe acts as a first-rate culture medium and frequently increases tympanites and diarrhea, the stools becoming fetid under its use.

For many years I have been much dissatisfied with the various theories which have been advanced to explain all the good effects which follow the use of cold bathing in typhoid fever. Most of my auditors will remember that but a few years ago the good effects of cold plunging were supposed to depend chiefly upon the fact that by this means we were able to bring the temperature approximately to normal. Increasing experience has, I think, taught us that the mere reduction of the temperature is the least of the results which hydrotherapy brings about. We must believe, on the other hand, that the readjustment of the circulation or the re-establishment of the normal circulatory equilibrium is the chief benefit derived from this method of treatment, and there can be no doubt, I think, that the great increase in the elimination of toxic materials in the urine after the cold bath depends upon this readjustment of the circulation and the increased rapidity with which toxic blood is taken to the kidneys where it can be purified. A number of years ago there appeared in the *Australasian Medical Gazette* a paper by one of the staff of the Brisbane Hospital, in which he reported a large series of cases of typhoid fever treated not by the use of the cold bath but by the employment of the tepid bath—a method instituted at first because the climate was so hot that ice was difficult to obtain, and subsequently adhered to because the results which were obtained fully equaled and indeed surpassed those which were reached by the use of ice-cold water. In these baths, as well as in the cold baths of Brandt, we all know that active friction is a factor of very great importance, aiding the dissipation of body heat, and the longer I study this matter the more convinced I am that active friction in these cases is an exceedingly important part of the treatment, not only because it aids in the dissipation of heat and readjusts the circulation, but also because it exerts upon the patient beneficial effects which follow the use of massage when we employ the rest cure in the treatment of neurasthenia.

Some months ago, when Dr. Mitchell read his first account

of the early cases in which he instituted the rest cure, he took pains to point out that he failed dismally in good results from rest in bed and forced feeding until in addition he provided passive exercise in the form of massage.

Personally I have come to consider that the value of the modern method of treating typhoid fever by cold depends in great part upon the fact that when cold bathing is used, the typhoid fever patient, who is undoubtedly suffering from a form of toxemic neurasthenia, receives throughout his illness a form of rest cure which maintains strength and puts him in first-rate physical condition in much the same manner as we endeavor to do for nervous wrecks in the social world. In other words, I do not believe that the free use of cold water in itself is the chief factor for good in these cases, but that if we amply feed and thoroughly rub our patients, a great portion of the good comes from these measures. In other words, I would advocate the employment of the Weir Mitchell rest cure in the treatment of typhoid fever.

I have also been very much impressed with two additional facts in this connection. One is that equally good results can be obtained in typhoid fever if patients are properly sponged with friction instead of being plunged. The same fall of temperature, the same reaction, the same reddening of the skin without cyanosis and congestion, can be produced by sponging with friction. I have never seen a temperature which could not be reduced by proper sponging or ice-rubbing, even better than by the plunge bath. The sponging possesses the additional advantage that the patient does not have to be moved from his bed; that the great muscles of the back can receive even more attention than the anterior portion of the body, thereby increasing the dissipation of heat very greatly and preventing creasing of the skin and the formation of bed-sores. For several years I have never plunged my patients, and have always sponged them. My experience is, however, that every new nurse that sponges for me has to be instructed in the proper use of friction, and in any instance in which the temperature fails to fall under this method I feel confident that the fault is in the way the nurse does the sponging and not in the method itself.

The second point is that many patients suffering from typhoid fever are profoundly toxemic when their temperature is considerably below 102½°, the point at which the cold plunge is usually considered wise. Such patients are not given the cold plunge for the very good reason that if they receive it their temperatures may become subnormal, and they may collapse. The toxemia is permitted to persist, because the temperature has not risen high enough. Under these circumstances I believe that we should resort to tepid baths. I feel convinced that I have repeatedly saved life by the use of tepid or even hot water

used with sponging and friction in toxemic cases which were certainly too feeble to bear cold. By the use of hot or tepid water with friction, circulatory equilibrium can be re-established, toxemia diminished, and even the temperature reduced to normal.

The next point I wish to consider is the question of the administration of alcohol to typhoid fever patients. Before I fed these cases so well I used very much more alcohol than I use at present, and I was firmly convinced of the fact that it did these patients good. I still use it quite largely, but, with good feeding, I can get along with much less than formerly, probably because the patient burns up food products in the body instead of burning up alcohol.

Closely connected with this question of the administration of alcohol is that which deals with the manner in which it can do good in typhoid fever. It has been shown so conclusively by a host of scientific investigators that alcohol is not a true stimulant in the sense in which we employ that term in connection with drugs which increase the functional activity of various organs, that we cannot ignore the fact that in the past our views concerning its mode of action were erroneous. On the other hand, the experience of a vast number of practitioners has been almost without exception in favor of the proper employment of this drug in typhoid fever, and surgeons innumerable are prepared to assert that iron, alcohol and quinine are the best means of combating various forms of bacteremia, admitting, it may be, that they know not how they do good, but asserting vehemently that they are invaluable.

At the present time it would seem likely that we are standing on the threshold of therapeutic discoveries which make all previous ones seem insignificant. Ehrlich's theories in regard to antitoxic bodies, receptors and haptophores have thrown a flood of light upon many physiological and pathological processes, and I believe are destined to show that many of our therapeutic measures which we have thought rested upon a scientific basis have been purely empirical, in the sense that we have been entirely ignorant of the manner in which their effects have been produced. In other words, as an illustration of this, in the past we have called alcohol a stimulant, thinking only of the circulation, the kidneys and respiration. It is quite possible that it does not act as a stimulant upon these functions, but upon other functions which are of equal importance in the human body, and are connected with immunity and the ability of our bodies to resist infection. It would seem probable that certain drugs, such as those I have named, for example, may exert an influence upon the body by means of which the processes of artificial immunity are greatly increased.—*Therapeutic Gazette.*

Progress of Medical Science.

SURGERY.

IN CHARGE OF EDMUND E. KING, GEORGE A. BINGHAM, C. B. SHUTTLEWORTH AND F. W. MARLOW.

An Original Method of Removing Needles from the Tissues is described by E. W. SHENTON in *Medical Electricity and Radiology.*

The needle is first accurately located by means of the X-ray; the limb is then turned so as to foreshorten the needle until it appears as a single point. An ink spot is made upon the skin corresponding to the one end of the needle, and upon the opposite side of the limb is placed another spot. A line joining these points will pass through the long axis of the needle. The tissues are now taken between the thumb and finger, and pressure is exerted on the two ink spots. The needle will, by this procedure, be moved toward the surface corresponding with its sharper end. The tissues are slowly and evenly compressed, and time is allowed between each pressure so as to allow them to regain their natural position. The needle will always travel to the surface which is nearer to its sharper end, and if this is too blunt to penetrate the integument a small prick with a scalpel will be sufficient to extract it. C. B. S.

Rupture of the Posterior Urethra.

Weller Van Hook of Chicago in the *Medical Record* of August 20th treats of rupture of the posterior urethra. He advocates immediate perineal section as the only rational treatment for complete lacerations of the male urethra. Clinical experience and experiments upon animals have shown the regenerative powers of the urethral tissues to be very great. Extensive portions of the urethra may be restored in their entirety without recourse to a plastic operation. The writer condemns the attempt to pass a catheter, often difficult or impossible, on account of the danger of infection occurring, often endangering life, and making a perineal incision for drainage imperative in the end. The technique is as follows: An incision beginning a half inch in front of the anus, and extending toward the scrotum an inch to an inch and a half. The skin is freely divided; the deep tissues are only incised to meet a grooved sound at a point posterior to the bulb of the urethra. The bulb is drawn forward by a blunt hook, and the distal end of the urethra is recognized by the sound passing through it.

The proximal end of the torn urethra may be found either by palpation of the smooth mucous membrane, or searching for it with a probe or catheter. The writer has found that it is usually possible to detect the upper end of the urethra by rolling it under the pubic arch, and then fixing it and making a longitudinal incision into it. The last resource is to do a suprapubic cystotomy and perform a retrograde catheterization. The ends are now freshened and drawn together by catgut sutures. The question of leaving a catheter in the urethra has been long discussed, but the weight of opinion is at present against the practice; the perineal wound, if left open, provides for drainage. The use of conical sounds is afterwards necessary to prevent contraction, whether a catheter has been left in the urethra or not.

When defects of the urethra are great enough to prevent approximation of the severed ends without too great tension, several alternatives are offered:

1. The method adopted by Ljunggren of suturing the tissues around a retained catheter.

2. Loosening the urethra from its bed. Defects of eight centimetres have been made good by mobilization of the urethra, especially if the lower extremities be extended at the hip joint during the operation.

3. Ekehorn employs an original method. A horse-shoe shaped flap, with its base above and the limbs of which are parallel to the spermatic cords, is dissected loose to the upper edge of the pubic bone. This flap, containing the scrotum and its contents, the penis and urethra, can now be drawn down.

4. Thiersch grafts may be used, or flaps of skin or mucous membrane may be utilized to bridge the gap in the ruptured urethra. C. B. S.

Rubber Gloves.

In the *Medical News* of August 20th, Howard D. Collins states that rubber gloves are often rendered septic by the manner in which they are put on. The left glove is worked on by means of the right hand, presumably not sterile, otherwise the gloves would not be used; or the glove is worked on under water, which has been previously contaminated by the hands. The water which drips from the wrist may also contaminate the wound later, or a defective glove may bring about the same result. The author sterilizes the gloves, turned inside out, by boiling them, lifts them from the sterilizer with *sterile* forceps, dusts them with sterile starch or lycopodium, turns them with forceps, and places them between sterile towels. They are put on by using sterile gauze, the hands not coming into contact with the gloves at all. C. B. S.

Clamp and Cautery Operation for Hemorrhoids.

Howard Lilienthal, in the *Medical Record* of August 27th, advocates a method of preventing the pain and œdema which occurs for several days after the clamp and cautery operation for hemorrhoids. After the clamping and burning he makes six or seven radiating incisions with scissors through the skin, going well into the subcutaneous tissues. This causes a free flow of serum for the next day or two, and prevents œdema with its danger of infection. This method has been thoroughly tested and has given great satisfaction, robbing the operation of its greatest terrors. C. B. S.

When and How Shall We Operate for Prostatic Hypertrophy?

An able paper by Willy Meyer, of New York, entitled, "When and How Shall We Operate for Prostatic Hypertrophy?" is published in the *Medical Record*, of June 25th. He holds that the *regular* use of the catheter by the patient who has enlarged prostate should no longer be a routine method of treatment. The author reserves "catheter life" for the well-to-do, intelligent class, who will faithfully carry out the necessary details of regular aseptic catheterism and vesical irrigation; and when neither patient nor physician is willing to take the risk of an operation, slight though it be; or where complications exist, such as advanced diabetes (5 per cent. sugar or more), chronic myocarditis and contracted kidneys.

He extends the age at which prostatectomy may be done, indefinitely, the patient's general condition being the only point to be taken into consideration when advising radical operation.

When prostatectomy, by either the perineal or suprapubic route, is contraindicated, and the use of the catheter has become intolerable, the author speaks highly of Bottini's operation in this otherwise hopeless class of patients. He gives the history of three such cases, in which favorable results were obtained.

The following conclusions are drawn:

1. In view of the present advanced status of prostatic surgery, the catheter should no longer be advised, but operative intervention should be urged as soon as the time for the regular use of the catheter has come.

2. Prostatectomy, being the most radical as well as the most surgical procedure, commands the first place in the treatment of the hypertrophied prostate gland, especially since the technique has been perfected to such a point as to render the operation a comparatively safe one, the mortality having been shown to be less than 5 per cent.

3. The perineal route seems preferable to the suprapubic, for

the reason that it enables the surgeon to do the operation more under the guidance of his eyes.

4. The choice of route in the average case will probably hinge on the question of preservation of sexual power, provided this point is of importance to the patient.

5. The patient's age, as such, does not furnish a contraindication to operation; it is his general condition merely that has to be taken into consideration.

6. Where the effects of general anæsthesia are feared spinal anæsthesia is indicated.

7. If the operation with the knife be refused or contraindicated, Bottini's operation (galvano-caustic prostatectomy), should be advised, since it, too, yields excellent results.

C. B. S.

Editorial.

CANADIAN MEDICAL ASSOCIATION.

The recent meeting of the Canadian Medical Association at Vancouver was successful to an extent far beyond the expectations of the majority. It is generally recognized that the success was largely due to the exertions and the magnetic personality of the President, Dr. Simon J. Tunstall. It is only fair to say, however, that Dr. Tunstall had behind him the profession of British Columbia, who worked together and succeeded in producing a programme which was satisfactory in all respects. The attendance was large, nearly three hundred being present.

The Association has been in existence thirty-eight years, and it is interesting to note that its first President, Sir Charles Tupper, is still alive and well. Many discussions have arisen in the past as to the desirability of holding all the meetings in one city, and many opinions have been expressed that Ottawa should be the city selected. There seems now, however, to be almost a consensus of opinion that the peripatetic method should be continued. Much force is given to such opinion by the decision this year to move from the Pacific to the Atlantic coast, *i.e.*, to hold the next meeting in Halifax under the presidency of our distinguished confrere, Dr. John Stewart.

Our friends in the West were much pleased about the support they received from the East. The lower provinces, Montreal, and many parts of Ontario sent goodly numbers of delegates. Toronto promised much, and did little—we are sorry to say. This city is inclined to boast of her prowess in matters educational: she has the largest medical college in Canada: she pretends to take a great interest in the welfare of our national Medical Association: she sent four physicians to the Vancouver meeting: and among the four there was not one professor of the Medical Faculty of the University of Toronto. We are assured, however, that this was largely an accident; and some of us derive a little comfort from the fact that Montreal, which, in the past, has been the strongest supporter of the Association, made even a worse showing at the London meeting last year.

Some of the visitors from other countries added much to the interest of the meeting by reading papers and taking part in various discussions. Among these were Mr. Mayo Robson and Dr. Jap Sinclair of England, Dr. Dudley of Chicago, Dr. Mayo of Minnesota, and Dr. McKenzie of Portland, Oregon. The courtesies extended to all by the local profession were beyond description in the small space at our disposal, and were very highly appreciated.

CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

The recent report of this Association is in some respects discouraging. Although it has been in existence for three years, the total membership is now only 288, including the following numbers in the different provinces: Ontario, 217: Quebec, 29: Nova Scotia, 8; New Brunswick, 10: Manitoba, 4: North-West Territories, 5; British Columbia, 15. The President, Dr. Powell, thinks, however, we may continue on our present lines for another year at least.

According to the solicitor's report, the Association during the last year has taken charge of six cases of alleged malpractice. The Committee have been careful in all cases to make inquiries as to the merits of the case, and have undertaken no defence where the defendant's actions were blameworthy. Thus far they have only declined to defend in one case, in which they advised the member to settle, because from his own statements he was in fault.

The Association has always insisted on having the proceedings conducted so far as possible through its own solicitors, who have been given the free hand in appointing agents and counsel to represent them in the cases which have been defended. No trouble has so far arisen excepting in one case in which the member had himself made arrangements for his defence before communicating with the officers of the Association. In this case an arrangement was made by which the Association agreed to contribute towards the expenses of the defence.

If a sufficient number of members join the Association from the different provinces, it will probably be found expedient to

have a local committee appointed for each province where the number of members will warrant the extra expense, with representatives from different districts and a solicitor or counsel to advise in regard to actions arising in such province. Up to the present all the actions except two have arisen in the Province of Ontario.

WATER FILTERS.

It has been generally recognized for many years that the average water filter is absolutely worthless. It is perhaps not so generally understood that it is frequently also dangerous. One element of danger is, of course, that it cannot under the best of circumstances purify water for any length of time. The Chicago *Health Bulletin* speaks as follows: "The common tap filters are not only worthless but are actually harmful because they do not stop any of the bacteria—only the organic matter, such as vegetables and animal detritus. Now, when the water is shut off, a few bacteria remaining upon this animal matter find it to be a suitable food, and as a result they increase enormously in numbers, so that the next water drawn through the tap filter washes them out; and the longer such a filter is used the more bacteria are found in the water which it filters. Stone or porcelain filters are of value, but only if properly cleaned. During the first few hours such a filter is used, the bacteria being so small pass through the pores of the filter. These pores finally become clogged with bacteria. Then after a number of hours, depending upon the pressure, the water will be free from bacteria, but after a day or so the bacteria grow through the filter and the water is again contaminated. Therefore, the first water coming from such a filter should be rejected and the filter itself should be boiled and thoroughly cleansed every two or three days."

AUTOMOBILES FOR MEDICAL MEN.

We are told that the trolley car and the horse will soon be driven from the crowded streets of our cities by the automobile. During the last twelve months the automobile output in the

United States exceeded in value all the locomotives built in America by $20,000,000, and the industry is considered now to be scarcely out of its infancy.

Many physicians both in the old and the new world have taken to the automobile. The Automobile Club of Great Britain and Ireland has devoted much time, energy and money during the last few years in carrying out prolonged trials of automobiles. We are told by the *British Medical Journal*, that one of the principal objects of the club is to popularize the use of automobile transport by making extensive trials of the productions of those manufacturers who are willing to submit to their tests. The last trials, which have been recently concluded, were very interesting to medical men, and were confined to cars of low price, the limit being fixed at £200, and the trial of each car lasted six days. In spite of the narrow limit, a large number of different makes were entered. The *Journal* promises to issue at an early date a complete report of the results. In the meantime, however, it states that a number of automobiles performed well, and the medical practitioner may now feel assured that he can purchase a car which is likely to give good satisfaction at a cost not to exceed $1,000.

CHRONIC CONSTIPATION.

The views of the medical profession on this important and common disease have been very divergent. Some have held it responsible for the gravest symptoms, while others have considered that auto-intoxication from this cause is rare. Nearly all agree, however, that the source of the trouble lies in the innervation of the intestine, leading either to a lessening of the normal peristalsis or to a spasm of the muscular coat. About two years ago Strassburger advanced the theory that chronic constipation was due to a lack of proper stimulus in the intestine, furnished in normal conditions by bacteria and their products. He was able to demonstrate that the feces from patients of this description were abnormally poor in bacteria—in fact, that they contained forty times less than were found in normal feces. This was largely due to the absence of the remnants of digested

food, such as muscle fibres, cellulose, etc., the usual nutrient medium of the intestinal flora. The food was too completely utilized to allow the necessary bacterial growth; the stools are consequently nearly odorless, and cannot support enough bacteria to generate the gases necessary for normal peristalsis. The rational cure, then, of this trouble would be, according to the opinions of some therapeutists, a diet of indigestible substances which would provide nutrient media for the intestinal bacteria. While we admit that a diet too restricted in character is apt to produce constipation, we know that a recommendation to use indigestible foods promiscuously is absurd. No definite rules can be given which will suit all men, but clinical observation shows that a carefully selected mixed diet suited to the idiosyncrasies of each patient is the best. Careful study is always required to discover what foods are the best for each patient under observation.

Cause of Cachexia accompanying Neoplasms.

Quite often a small, non-ulcerating, malignant tumor produces such a marked cachexia that we are at a loss to account for it. It was assumed that the tumor cells secreted a poisonous substance which was absorbed by the system, but no one attempted to isolate this toxin. Early this year, however, Kullmann has found that the cells of cancer contain a substance which rapidly dissolves blood corpuscles. This toxin he isolated and injected into the bodies of animals, producing a prompt and active dissolution of the blood corpuscles. A similar substance has also been isolated from the cells of sarcoma.

Personals.

Dr. Price Brown, of Toronto, returned from England, September 1st.

Dr. Simon J. Tunstall, of Vancouver, visited Toronto, September 28th.

Dr. Thomas McCrae, of Baltimore, Md., visited Toronto, September 13th.

Professor Lang paid two visits to England during the summer holidays.

Dr. J. Watson, Unionville, has moved to Toronto and will reside at 829 College Street.

Dr. W. W. Jones, of Mount Forest, Ont., has become a Fellow of the Royal College of Surgeons of England.

Dr. Brefney O'Reilly, of Toronto, sailed from Vancouver, September 19th, on the SS. *Tartar* as its medical officer.

Dr. Goldwin Howland, after a post-graduate course of two years in England and on the Continent, has returned to Toronto.

Professor J. J. McKenzie spent the greater part of the summer in Great Britain, and returned to Toronto, September 15th.

Dr. J. Archer Brown, of Colborne, Ont., and Dr. F. N. Hughes, Fennell's, Ont., have gone to London, England, for post-graduate work.

Dr. H. B. Anderson, of Toronto, after spending a portion of the summer on Georgian Bay, returned to his home, September 1st.

Dr. F. N. G. Starr, of Toronto, was married to Miss Mackay, daughter of G. Forest Mackay, at New Glasgow, N.S., September 14th.

Professor Ramsay Wright, who spent the greater portion of the summer in Prince Edward Island, returned to Toronto, September 25th.

Dr. James Lyons Biggar, of Tillsonburg, Ont., was married to Miss McMurrich, daughter of Mr. W. B. McMurrich, at Toronto, September 22nd.

Dr. R. W. Bruce Smith, Assistant Superintendent of the Asylum for Insane, Brockville, has been appointed Inspector of Prisons and Asylums in the place of Dr. J. F. Chamberlain, resigned.

Dr. Franklin Dawson, of Toronto, returned to his home, September 11th, after a tour of four months in England, Scotland and France.

Dr. Jas. F. W. Ross, of Toronto, attended the meeting of the American Association of Obstetricians and Gynecologists held in St. Louis, September 15th to 18th.

Dr. Arthur W. Maybury, of 253 Spadina Avenue, Toronto, has returned to the city, and resumed his special work in diseases of the nose, throat and chest, September 19th.

Prof. Jap. Sinclair, of Manchester, England, after attending the meeting of the Canadian Medical Association in Vancouver, spent a few days in Toronto, the guest of Dr. J. F. W. Ross.

Professor I. H. Cameron who attended the meeting of the British Medical Association at Oxford and also paid a short visit to the Continent, returned to Toronto, September 20th.

Dr. Chas. O'Reilly, of Toronto, attended a meeting of the National Association of Hospital Superintendents at Atlantic City, September 20th, to 23rd, and was re-elected first vice-president.

Dr. Herbert A. Bruce made a fairly rapid recovery after the appendicectomy, performed August 31st. He left Toronto, October 1st, for Atlantic City, where he expected to remain a fortnight.

The following Canadians have been admitted members of the College of Surgeons, England: F. G. Neal, M.B. (Tor.); G. H. McLaren, M.B. (Tor.); W. E. Robertson, M.B. (Tor.); W. T. Wallace, M.B. (Tor.).

Dr. A. Orr Hastings returned from England to New York on the new SS. *Baltic* of the White Star Line, which on this occasion carried more passengers than have ever before crossed the ocean at any one time.

Dr. John McCrae, of Montreal, has been appointed Professor of Pathology in the University of Vermont. This appointment will not interfere with his residence and professional and collegiate work in Montreal.

Dr. C. R. Dickson, of Toronto, attended the American Electro-Therapeutic Association in St. Louis, September 20th to 23rd. He also attended the International Electrical Congress as a delegate of the American Association.

Dr. C. K. Clarke, Medical Superintendent of the Rockwood Hospital, Kingston, Ont., has been appointed co-editor of the *American Journal of Insanity*. His editorial duties will not interfere with his work in the Rockwood Hospital.

Dr. Wallace Scott is another of our Canadian graduates who has recently become a Fellow of the Royal College of Surgeons of England. After a two-years' post-graduate course in London, he visited Toronto, and was the guest of his father, Principal Scott, of the Normal School.

Lord Strathcona has recently given $50,000 to the Medical Faculty of McGill University for general endowment purposes. It is also announced that Lord Strathcona and Sir Wm. Macdonald have given $25,000 each, towards the fund for the establishment of a University gymnasium.

Dr. J. A. Roberts, of Toronto, has recently become a Fellow of the Royal College of Surgeons, of England. During his recent visit to Toronto he was the guest of Dr. J. T. Clark. He is at present visiting some of the large hospitals of the United States, and will probably commence practice in Toronto shortly.

Mr. Cawthra Mulock, son of Sir William Mulock, has presented to the trustees of the Toronto General Hospital the sum of one hundred thousand dollars for the building, equipping and furnishing of an out-door department for the treatment of the sick poor, and at the same time to furnish further facilities for clinical teaching for the Medical Faculty of the University of Toronto.

Sir Lauder Brunton, of London, England, recently visited certain cities of Canada. He came from Ottawa to Toronto, and spent a couple of days in the latter city, being the guest of Dr. McPhedran. Never since Lister visited Toronto in 1897 have the physicians of the latter city been so thoroughly charmed with any medical representative of the Mother Country as they were with Sir Lauder.

Obituary.

DR. ROBERT SAMUEL CHEFFEY.

Dr. Robert Samuel Cheffey, formerly of Alliston and Beeton, died in the General Hospital, Toronto, Sept. 12th, aged 78. Dr. Cheffey was for over half a century a prominent figure in the County of Simcoe, as a physician, a coroner and a public-spirited citizen. He retired from active practice and removed to Toronto about four years ago.

DR. WM. STEWART FRALEIGH.

Dr. Wm. Stewart Fraleigh, of Toronto, died August 20th. He graduated from McGill University in 1869. He had practised in Toronto for many years, and also took considerable interest in public affairs, being for a time one of the city aldermen.

DR. JOHN CASCADEN.

Dr. John Cascaden died at his home in Dutton, August 31st. He graduated from the University of Toronto in 1863. After some hospital service in the American civil war and a post-graduate course in Great Britain, he practised for a number of years in Western Ontario. In 1890 he was appointed Medical Superintendent of the Mimico Asylum, but resigned in a few months, and resumed the practice of medicine in Dutton. In politics he was a strong Liberal, and was elected to the Legislature at the general elections of 1879 and 1883. He retired from active politics at the end of his second term.

MR. JOSEPH HALL.

Mr. Joseph Hall, a medical student at the Western University, London, Ont., was drowned at Bear Creek, in the township of Enniskillen, August 21st.

The Canadian Practitioner and Review.

VOL. XXIX. TORONTO, NOVEMBER, 1904. NO. 11.

Original Communications.

THE MEDICAL SOCIETY: ITS PLACE AND EQUIPMENT.*

BY JOHN HUNTER, M.D.,
Physician, Toronto Western Hospital.

A writer says, "There is, for every one of us, a place and also an equipment that, taken together, ensure success. It is our duty to find our place, and to use our equipment." The wisdom of this statement may be taken as indisputable. I shall, therefore, with some license use it as a text on which to base a few remarks that you will please accept as an instalment on the debt which, as president, I owe to the members of this society for the honor conferred upon me. It has the merit, too, of being a fairly orthodox text, for it can be said that it naturally divides itself into two heads: The Place and The Equipment.

THE PLACE.

The medical society was begotten, and has ever been perpetuated, by one of the most meritorious inspirations that govern the physician's life, namely, the desire for more knowle lge, wider experience and greater skill. A glance over the names enrolled in the membership of a medical society shows the place it holds in the estimation of medical men. There you find the names of men distinguished alike for the highest professional attainments in technical knowledge and skill, and also for the noblest attributes of character. The fact that the medical society can gather into it such a class of men, is very positive evidence that it has a place. Another equally strong

* Presidential Address, before the Toronto Medical Society, October 6th, 1904.

proof of its right to claim a place is the fact that the progress in the science and art of medicine is very largely due to the work which has been done in the medical society. Where else can papers be presented and discussed to better advantage? The medical journal is a great medium for the distribution of knowledge. But what physician, who has listened to the words and studied the play of emotions, as expressed in feature and gesture of some of our great medical teachers, would exchange that experience for a perusal of the same article in the quiet of the library, however interesting and instructive a careful reading might prove to be? Would the apostles have accomplished as much for Christianity if they had read the words of its Founder instead of hearing them from His lips? Was it not the impress of a personality that made these men invincible? What surgeon could listen to Lister without receiving an inspiration to do all his work more aseptically for all the days to come? Those of us who had the pleasure of hearing Osler's address at the meeting of the Canadian Medical Association, in Montreal, treasure that occasion as one of the most inspiring of the reminiscences of life. To these two names each one of us could add many others of men to whom we have listened with the greatest pleasure and profit. But some may say that often they have neither been pleased nor edified by the manner in which papers or addresses have been given in the medical society. This suggests another feature that may be very briefly referred to, viz., that the medical society is a place for moral and social development.

High attainments in technical knowledge and skill may be grievously impaired if associated with irascible tempers and boorish manners, which ruthlessly lacerate those tender feelings that constitute the "woof and warp" of our sentiments. A medical society is a school in which anything incongruous in language or manner is likely to be rebuked and corrected. In what other place do sharp tricks, dishonorable intrigues, or petty jealousies seem so small and contemptible to us as when we are convened in a medical society? Here we meet in a quieter and serener atmosphere, where the heat and discomfitures that arise from the friction and collisions of the every-day struggle for existence or pre-eminence are not felt, and where we can estimate more justly the work and worth of our fellows.

Time will not permit me to dwell any longer on this phase of my subject; but I wish, *en passant* to refer briefly to those who are not members of any medical society. These men belong chiefly to one or another of three groups: The egotists, who are deluded by the belief that they are the incarnation of all knowledge, and, therefore, cannot be taught anything

by their fellows: the indolent and indifferent—quite too numerous a class; and, perhaps, the most pitiable of all, those who cling to the delusion that they must cherish a real or imaginary grievance against some member or members of the society. These feel their loss keenly, but still hold that it is their duty to immolate themselves on the altar of revenge. Some may say, "Well, if these do not wish to attend let them stay away, we can get along without them." Could we dispose of these classes in this cursory manner, it certainly would be an easy way to get rid of them. But can we do so? These men are members of our profession, and the old adage holds true in our case as in all others, that "a chain is no stronger than its weakest link, a fleet no swifter than its slowest vessel, nor a fortress any stronger than its weakest point." A majority of the cases of sickness fall into the hands of the nearest physicians; and, if any of these be less competent because they will not avail themselves of the help a medical society can render, their incompetency and ignorance imperil life and bring opprobrium on an honorable profession. Have those of us who can speak from experience of the value of the medical society no missionary work to do among these classes who do not attend its meetings? Should we leave egotism, ignorance, indifference and petty jealousies to exercise their baneful influence? Is there any better way to get rid of evils than to expose them? "Is not he who is afraid to see, and dare not mention the wrongdoing of himself and his colleagues, his profession's worst enemy?" Should we not govern our own lives, and as far as lies in our power, help others to govern theirs, by the abstract truths that "right is right, wrong is wrong, and duty is duty?" Unless the wisest, most cultured and upright men have erred in judgment, or have been deceived by experience, their actions prove that the medical society is the right place for every medical man, inspired with any desire for more knowledge, wider experience, and greater skill.

The Equipment.

The question of equipment is always involved in the character of the work to be done. Upholstered furniture would not be an essential part in the equipment of a dissecting room. It might represent surplus wealth or a morbid type of refinement; but strong tables and adjustable stools would answer much better. So in a medical society, learned papers and discussions on mere abstract theories might exhibit mental acumen, but the record of everyday experience would be of much greater utility.

The equipment of a medical society, in so far as the place of meeting is concerned, and the frequency with which the

meetings are held, must be governed by special conditions. The rooms should be centrally situated, suitably furnished, well ventilated and lighted. Experience fully proves that meetings held weekly or bi-weekly are much better attended than those held at longer intervals. The meetings should open at the appointed hour. They should not, as a rule, extend over two hours, as long hours exhaust vitality and impair the interest in the proceedings. I suppose it is a matter of individual opinion as to whether or not we should retire immediately after the session is over, or spend a few minutes socially over some light refreshments. Personally, I prefer the latter, as it affords an opportunity for the members to become better known to each other, and as a result to become better friends.

We come now to consider the most essential part of the equipment of the medical society—the papers, discussions, and the presentation of cases, pathological specimens, photos, instruments and surgical appliances.

Before entering upon the discussion of these, permit me to make a short digression, for I wish to state as emphatically as I can, that there is an imperative obligation resting upon every member of a medical society, not only to attend its meetings as regularly as possible, but also to take an active part in the work. The function of a medical society is not to nurture drones and parasites, but to be a school in which all are experts and zealous students, imparting and acquiring knowledge.

Papers.

In preparing a paper at least three features should be most religiously kept in view. It should be practical, tersely and concisely written in technical language, and brief. In a society like this one, which includes the whole field of medicine and surgery, the writer of a paper has a great variety of subjects to choose from. When a choice has been made, the writer should strive to imitate the true artist—stamp his individuality on his work. He should never leave it possible for anyone to say that his paper was simply a mere repetition of what has been written in books or journals. Before writing his article, he should read every book and journal that can aid him; but his paper should be as characteristically his own as are his features or tone of voice. What one reads and hears should be to the mind what wholesome food is to the body. The cantatrice transforms her food into musical symphonies that are enchanting, and the statesman his dinner into words that are lustily cheered by his followers. If this be true of physical nutriment (and it is a scientific fact that without the proper assimilation of food we could have neither song nor speech), why not make as great a transformation in our mental pabulum? The auditory and

ocular centres were never intended to be mere wayside storehouses out of which the same thoughts should pass again, but rather to be switchboards, flashing the impressions on to the psychic laboratories, whose functions are to discover and interpret these impressions as they come, and then stamp them with personality and send them forth again to delight others and to increase the common fund of knowledge. It does not necessarily follow that the work of each one of us will equal in importance that of a Harvey, a Hunter, a Jenner, or a Lister, but it should represent the best that the opportunities of our age, our experience and our mental endowments can produce.

So much for the intrinsic worth and character of a paper, and now a few words about the form and manner of its presentation. An instrument may have considerable value in its design, but be of such poor workmanship that its worth is seriously impaired. In like manner, a paper may show much originality of thought and yet be so carelessly arranged and so poorly read that its real merit is lost to the audience. The writer of a paper should take under his "most careful consideration" the fact that an audience has only a limited amount of time and energy to spend on any one paper, and so should be extremely conservative of both. The scope of his subject should be clearly outlined in title and headings, and the language concise and technical. He should exercise all his elocutionary powers, the tone of voice being made pleasant and the pitch such as to be easily heard by all present. It is the speaker's duty to make himself heard, not the duty of the audience to have to strain their attention to hear him. How can one expect an audience to be interested in his subject when he buries his face in his paper and mutters away to himself? Papers should be of no greater length than is necessary to present the subject intelligently. It is as bad to overfeed an audience as it is to overfeed a baby. Too long a paper causes a wave of anguish to sweep over the faces of those who have to listen, and also a constant shifting of positions in order that they may be able to endure the affliction and mitigate their suffering as much as possible.

The Discussions.

These, like the papers, should bear the impress of the speaker. It is well to be able to quote authorities, but better still if able to qualify them from personal experience. This by no means excludes the younger members from taking part in the discussions: for how often it happens in earlier years that cases are met which furnish an experience rarely, if ever, duplicated. The youngest member may thus be able to contribute something of as great value to the society as the old veteran can, and, if you will allow a slight digression here, I

would say that this is pre-eminently the young man's age, and I wish to extend to all such a most cordial invitation to take a large share in our work. In doing so I am sure I express the feelings of all, not only of those in the strenuous period of mid-life, but also of those of us labelled with the serener graces of maturer years.

Clinical Material.

In this contingent of our equipment are included clinical cases, pathological specimens, photos, instruments and appliances. However valuable good papers and discussions may be, yet these do not seem to meet all the requirements. We rather long for something that we can see, feel and handle. The appearance presented by the morbid condition, the sounds elicited by percussion or heard through the stethoscope, the sensation produced by touch, can scarcely be overestimated as aids in furnishing information. In the absence of patient or morbid specimen, good photos are of great service, and no description of instruments or appliances can equal the act of examining and handling them.

I must not violate some of the precepts I have laid down, so will briefly summarize this phase of my subject as follows: The equipments of a medical society are, a home in a central locality with suitably furnished, well-lighted, properly ventilated rooms; weekly or bi-weekly meetings, beginning sharp on time, and of about two hours' duration; short, practical papers and discussions, bearing the impress of originality and personality; presentation of clinical cases, pathological specimens, instruments and appliances; a large membership, with punctual and regular attendance.

In conclusion, am I not justified in saying that any physician who makes it his business to join the Toronto Medical Society, or one of its sister societies, will find a place and an equipment that, taken together, will insure his success; not always, it may be, if judged from the pecuniary standpoint alone, but assuredly success in that far worthier achievement, the ability to do good work?

ADDRESS ON OPENING OF MEDICAL SESSION, TORONTO UNIVERSITY, OCTOBER 3RD, 1904.

By J. ALGERNON TEMPLE, M.D., Toronto.

Mr. President, Ladies and Gentlemen,—I must acknowledge with deep feeling the honor which my confreres have conferred on me in selecting me to deliver the opening address to you this session.

To-day we enter upon the second session of the combined schools of medicine, and if the past session be an earnest of the success which we are to meet with in the future, we have reason for congratulations.

We are this year continuing the work for which the foundation was really laid last session, the work made possible by the amalgamation of the medical colleges, the construction of this building, and the equipment of laboratories contained therein, presenting a combination sufficient in efficiency and equipment to guarantee a medical education for the country which will bring it into the foremost rank of the world.

In no department of knowledge has the separation of thought from the tangled mesh of scholasticism been followed by more or greater benefits to science and humanity than in medicine. Since reason displaced authority, and demonstration superseded unverified hypothesis, medicine has gradually worked its way into the front rank among so-called natural sciences. Thanks to the methods of experimentation, medicine, as an art and a science, has made more advance in the last two centuries and a half than it had made in the previous eighteen.

If this work is to continue and grow it can only do so by the distribution of that knowledge regarding medicine, which, when thoroughly comprehended, will appeal to government and people alike, and compel that support which even no higher motive than self-preservation prompts. Over and over again it has been demonstrated that the increase of medical knowledge is an asset of value to the community in which it has occurred. Let us stop for a moment to survey some of the branches of our work which more intimately touch the masses of people. I do not propose or claim to be able to present a perfect and complete portrait of the marvellous progress of our craft, but even the dullest can see some rays of light in the picture which must appeal to them very strongly. No more than half a century ago the unfortunate, suffering from that direst of all afflictions, the loss of reason, was separated from his fellows,

and subjected to restraint, confinement, torture, chains and fetters. But fifty years of progress and advancement have abolished all this, and to-day the bond and the straight-jacket are the things of the past, while sunshine, comparative happiness, home comforts, the development of restful surroundings, proper nourishment, freedom from care, and the supplying of well-regulated pleasure have become the lot of this class of sufferers. Again, when we turn to the department of surgery, and survey even superficially the marvellous progress and attainments of this department of our art, when we stand in horror before the pictures of the suffering, torture and agonies endured prior to the time of Sir James Y. Simpson; when we read in our literature of the hemorrhage from the amputated stump being checked by the application of melting tar and red-hot iron; when we endeavor to enumerate those regions of our body which were forbidden the surgeon because of the writhings unavoidable in the absence of anesthesia; when we see to-day the results of the ligature and antisepsis; when we read of the success of the abdominal surgeon and the almost fairy pictures revealed in intra-craniectomy rendered possible alone by the quiet and unostentatious yet unremitting labors of the plodding student, is it any wonder that we should apply for some measure of recognition from governing bodies, or from the great mass of the public, who either do not know, or do not heed these great achievements? When we look again at what has been achieved by the pioneers in medicine we find a great improvement in sanitary conditions, a marked diminution of preventable diseases, and an almost total suppression of some of the devastating plagues so prevalent fifty years ago.

If this country is to keep its place, if it is to sustain its reputation and its scientific prowess, two things must assuredly happen. The Government must recognize more fully than it has in the past the real commercial value of scientific education and scientific work; and the creator of wealth must also realize that he owes some measure of his success, and some of the money made, to the great institutions whose walls sheltered the quiet and unknown student in his scientific investigations, the results of which are too often absorbed by what the public recognize as the successful manufacturer. It remains with the Government to do its part in this great amalgamated scheme, and realize the necessity at once of endowing such Chairs as Bacteriology, Hygiene and Pathology, and in furnishing sufficient funds for securing teachers who will be able to give their undivided attention to these all-important branches. It remains for the wealthy merchant to follow the examples of those in the republic to the south of us.

The recent generous and munificent gift of Mr. Cawthra Mulock, I hope, will stimulate some of our wealthy citizens to follow his example and give of their abundance. I trust Mr. Mulock may be spared for many years to see the fruits of his gift abundantly realized, for to no better cause could he devote his wealth than the furtherance of clinical research and the relief of the suffering poor.

I extend a most hearty and cordial welcome to those of you who have already been associated with us in the past, and also to those who for the first time appear here to-night. I should express the hope that the same devotion to study, which has in the past characterized the medical students of this University, will be fully maintained by the class of this session, and the mutual respect and good-will which has existed in the past between professors and students will continue, developing a kindly feeling and interest in each other. I can assure you, gentlemen, that you have no warmer friends or well-wishers for your future welfare than your professors. Long after you leave these halls your progress in life is watched, and your successful climbing up the professional ladder affords us both gratification and pleasure.

The science of medicine requires a wide and varied experience in other departments of knowledge: it is not enough for you to confine your studies to medical works alone; you ought to be well read in other subjects, or you are apt to become narrow in your views. The more time you can devote to other branches of science the better fitted will you become to understand the many complex subjects of medicine. The great aim of medicine is the prevention of disease, the preservation of health, and the cure of disease.

Medicine is one of the most difficult studies you can enter upon. To grasp fully all that has been written to-day on medicine is a task not lightly to be undertaken. It will require all your energies and determination to master, even in a most superficial manner, its very outlines: yet for all that it is one of the most interesting and attractive studies you could possibly select, and as you proceed step by step its attractiveness and beauty will gradually unfold itself to your mind.

The first year or two of the student's life is the most momentous time of his whole student career. If he wastes that time he can never recall the lost hours. If, on the other hand, he avails himself of the opportunities placed within his grasp, he lays a foundation which will ever prove invaluable to him; and when he passes from the class-room to the hospital wards he will never come out of them without having learnt something he never knew before. His future may be either a success or a failure; it rests with himself which it shall be. I

am no believer in what is called "luck" or "fortune," but believe every man's success depends on his own steady and persistent labor; his future success is largely under his own control; the truly successful men are those who do their work and do it with all their might. The lazy, procrastinating, waiting man is, with few exceptions, a disappointed man; he waits and waits for something to turn up, but he waits in vain; his life slowly passes away; the opportunity he hoped for never comes, and in the sunset of his days he finds himself a disappointed man, his youth spent, his energies dead, his hopes extinguished; he has wasted a life which might and ought to have been better in its success, and yet even then he fails to see he has himself alone to blame.

Enter on your studies with a firm determination; work methodically; lay out for yourself a certain amount of work to be done daily, see that it is done, let nothing prevent your doing it: do not let yourself become careless or indifferent to your work; you may often feel weary, fatigued, or even despondent, but do not let your feelings conquer you, and there can be no question of failure in the end. Success is sure to be yours. Constant and regular attention in the lecture-room is essential. I am thoroughly convinced that didactic teaching is as essential to the student as any part of his whole training. I do not wish to overburden the student with lectures, but I fear there is a tendency in some quarters to ignore their usefulness. This, I think, is a great mistake. There was a time when too many lectures were required of the student. He was compelled to follow the same course of one hundred lectures on one subject twice over—an obvious absurdity. The Ontario Medical Council wisely cut the lectures down to one-half of their former number.

In these days the science of medicine is making tremendous strides, encouraged and prompted by laboratory research, and many a seemingly small discovery may mean a great bound in professional advancement: but whilst the laboratory undoubtedly has its purpose, and the cloister studies of original research may result in invaluable benefit to the medical practitioner, we must not forget the wide field of medical work, where nature plays the part of a cruel and relentless vivisector, producing many an experiment which you will be asked to interpret, and the results and bearings of which you must forecast with a certain degree of absolute accuracy. In the life of a medical practitioner the laboratory must never be permitted to supersede that larger laboratory, the hospital ward, nor the study of those intricate problems of disease whose relief is the life-work of the true physician, and whose surroundings are often dissimilar in every way from what he might be led to fancy they

would be from studying only the narrower feature in laboratory research.

The importance of hospital attendance is extreme; here you will learn the habit of observation, and familiarize yourself with investigations into the diseased conditions of man. Clinical investigation at the bedside will give you confidence in yourself and enable you to investigate for yourself the various forms of diseases.

Reading and study are essentially necessary to acquire the knowledge of the causes and symptoms of disease, but clinical experience is still more necessary to enable you practically to apply that knowledge, The responsibility that rests on you as a practitioner is very great. To your care and skill will be entrusted many a valuable life, and if you should prove ignorant, incompetent, and not prompt and decisive in action, you may perhaps be the means of losing a life, of depriving a family of the love and care of a mother or father whose place can never be filled. If, on the other hand, you are competent, you will have the undying satisfaction, it may be, of snatching a life from the very jaws of death. What can be of more satisfaction to any man than such a reward? No pecuniary remuneration is equal to your own consciousness of the successful discharge of your duties. The grateful thanks of the poor man, who has only thanks to offer for your services, will be esteemed by you as of more value than the money of him who only values your services at so many dollars. The day you are enrolled as a member of the medical profession your responsibilities begin. Until then you have scarcely known what responsibility means; and as you proceed in your professional career, responsibility continues to increase with your increasing work. You will some day realize the tremendous weight of this responsibility; when, for instance, you stand at the bedside of some stricken and dearly-beloved member of a family who have called you in, and who have placed their whole trust and confidence in your skill. The stricken one may be the head of the family, the breadwinner, upon whose daily work depends the existence of a large family, or it may be the beloved mother. Or, again, it may be a child, perhaps the only and dearly-beloved child, for whom your ministrations are sought by the sorrowing parents, the going out of whose life would crush their every hope, and you stand there entrusted with their full confidence. They will watch your every movement—they will listen eagerly for some words of hope from you. Upon your decisive action, your skill, the balance is turned, the life is snatched from the grave. Do you not think that this is a responsible moment in a man's life? Is it not sad to think, on the other hand, that through ignorance, neglect and carelessness, you may have

helped to sever the tender cord that bound that precious life to the bereaved family? We cannot save every life, but we are expected most assuredly by our patients at least to commit no gross blunders.

The practice of medicine demands of us the greatest devotion and self-denial—and not unfrequently, true heroism. It is not in the din of battle, or the excitement amid the roar of cannon and shouts of the victors, that he is called upon to do some act of bravery, but in the hush of some dread disease or epidemic, that the physician daily takes his life in his hands, and goes in among the sick and dying. There he is to be found, ministering to the suffering, soothing their last moments, never thinking of himself or the danger he is exposing himself to, but only of the faithful discharge of his sacred duty. How many noble men in the past have, under such circumstances, sacrificed their lives in their endeavors to stem some dread epidemic, to find out some mystery about the disease that is rushing over the land.

Truthfulness and loyalty must at all times characterize your life and actions. Be loyal to your King, your country, your profession and yourselves. Never be tempted to do a mean thing. Some day in the near future you will come to this great university to seek at her hands the highest gift she has to give, viz., her diploma. I tell you, gentlemen, if she could foresee that you would some day tarnish her honor by some dishonorable act, no inducement, however great, would tempt her to entrust you with that diploma. She looks to you to help build up her reputation and not drag her honor in the mire. If your only object in seeking admission to the ranks of medicine is to gain wealth, you will be doomed to disappointment. Few, indeed, are those who succeed in that direction.

It is only the charlatan and quack who amass great fortunes out of the too credulous public. The public are only too ready to read their pretentious advertisements and ludicrous promises to cure all ills human flesh is heir to. Few, apparently, ever stop to enquire into the truthfulness of their glowing promises. The public press of this city teems with quack advertisements that are simply disgusting, a disgrace to our public prints, and I cannot understand why such advertisements are permitted in our midst—why any respectable newspaper will permit them on its pages.

If the profession has to maintain its high position, truthfulness and honor must reign supreme in all the dealings of its members. Lapses from moral or professional rectitude are never profitable In the majority of instances they are wholly and completely ruinous; and whilst one might fancy they

would afford temporary relief in cases of stringency, they all lead to one central pit of everlasting and complete professional failure, Two wrongs never make a right. If your colleague and competitor resorts to unprofessional action, it does not justify or excuse you in similar conduct.

The establishment of a post-graduate course here during the past summer was a step in the right direction, The usefulness of a post-graduate course has been proved beyond measure by the success which has attended these post-graduate schools in Berlin, Vienna and New York, and I venture to say it only wants time to prove the same of our own. We have the material and the men to make post-graduate work a success, and practitioners throughout our province will not be slow in availing themselves of the advantages to be gained from attending for a few weeks from time to time a practical course in hospital and laboratory work. After a man has been in practice for some years, isolated, in many instances, the advantages to be derived from returning once again to the hospital and laboratory must be of immense advantage to him.

The progress our profession is making in educational matters ought to be a source of great gratification to us all. The preliminary education required of our students prior to entering on the study of medicine compares favorably with that of the Old World. The elevation of the standard of education tends to elevate our profession and to draw to its ranks a better class of students, and providing the standard is not raised too suddenly and beyond our requirements, no harm can come of it. Wherever possible a liberal education should always precede professional education and training. The student who is liberally educated, who has imagination and originality, will never be in danger of regarding his degree in medicine as merely a bread-and-butter degree. To do his work honestly and well is his first consideration. His income, though a very important consideration, will ever be a secondary consideration to the man of wisdom and honor. He who puts income first will never achieve success in the best sense of that much-abused word. I cannot too strongly impress this fact upon my young friends. Nor can I impress upon them too strongly the necessity of being reading men, not only now, but all through their lives. The gift for reading is a priceless gift. Few have it by nature, but fortunately it can be acquired. The world's great men have invariably been great readers.

Those who are gathered together here this evening are not all members of the medical profession or preparing to become members of it, not all alike interested in its welfare and repute. Much that I have said will, I fear, be of little practical concern to the laity, yet there is no other profession in whose well-being

and reputation the public is really so deeply and practically concerned as in the medical profession. To every man, woman and child in the community the standard attained by this profession is of immense moment. Disease is no respecter of persons. No individual can afford, then, to be indifferent to those things which make for a skilful and learned and highly efficient medical profession. The law of self-preservation, if no other, would point out the folly of indifference. Yet for all that, and in spite of the greater prevalence in these present days of the altruistic spirit, we cannot say that the present state of public opinion in Canada with respect to the value of professional instruction of high university rank is what it should be. When the mass of the people appear to be hungering for quacks and quackery and patent medicines, a strong public opinion in favor of education of any kind is scarcely to be expected. On the earnestness with which the Canadian public regard education in general, and on their consequent willingness to spend money on it depends in large degree the standard which will be won and maintained in the Dominion. We should allow no country to surpass us in advanced subjects of medical instruction. I have no hesitation in saying that the standard of medical education in a country is one of the most sure, if not the surest, of tests for judging the intellectual status of its people, the stage it has reached in civilization. Disregard for human life is invariably a sign of a low civilization. Moreover, money spent on education is a magnificent investment for any country. You cannot estimate a nation's greatness merely by the number of bushels of wheat it exports, or by its miles of railways and canals, or by its lines of steamships, or by its coal, its iron, its gold, or by its forestry. Yet, when our orators would tell what great people we are, what very fine fellows we are, it is on these things they dilate. No, a nation's greatness is weighed in balances more delicate than those that weigh material things. Its standard of greatness, of success, cannot be measured in dollars —so many dollars, so much success. That country promises to be the greatest which most clearly recognizes the indisputable fact that of all subjects deserving the serious consideration of the people, education is the most important, moral and spiritual, of course, as well as material. Buckle, in his well-known "History of Civilization," tells us that the acquisition of fresh knowledge is the necessary precursor of every step in social progress, and must itself be preceded by a love of inquiry and research. It is not enough for us to be passive recipients of the accumulated inherited thought of the ages gone before. A nation to advance must make original contributions to knowledge and learning. A profession to advance must likewise make original contributions to knowledge and learning. It cannot stand

still. To keep medical instruction abreast of medical progress the professor must lecture on what he is doing, on what he is discovering by research and not on what other people have done or discussed. Do our public men, and the power behind them, recognize this fact? Are they doing what they can to promote liberal education and the highest professional training? Do they realize that the one great and chief office of education should be to call forth and develop whatever spirit of originality, whatever element of genius may lurk in the mind, and that this cannot be accomplished without our students acquiring the methods and habits of scientific research, and enjoying opportunities for the prosecution of such research, and abundant facilities in the way of libraries, museums and laboratories? Is all this realized by our public men and by the people who pick them out from their fellows and send them as representatives to parliament? There can only be one answer to this question, but I will leave it to you, ladies and gentlemen, to determine what that answer is. In reading the various reports of the members of the recent Mosely Educational Commission, nothing impressed me more than the intense belief of the Americans in education, the enthusiasm for it which is everywhere manifest, the consequent willingness of Government and people to pay for it, and the amazing liberality of their wealthy men in promoting higher education, both liberal and professional. It is at least one characteristic of our neighbors which we can all admire without reservation. They have more money than we have, but they should not have more enthusiasm for learning and culture. I am an intense believer in the ability and stability of my own people. We have few failures in the medical profession in Canada, and fewer still who slide down hill and eventually join that unhappy class popularly known as the "submerged tenth." My own experience leads me to believe that nearly everyone who comes to our medical school has enough of the right stuff in him to enable him to be trained and instructed, and sent forth from our halls a good physician or a good surgeon. All cannot be great successes. Clever, successful men are, to a large extent, born, not made. But fresh and living and stimulating education, opportunities and facilities in the way of libraries, laboratories and museums for independent study and research can go far toward insuring a man's success. For these reasons I appeal to our public-spirited citizens, to those who appreciate the high value of the coherent and civic conception of education, to aid by their personal influence the creation of a public sentiment in this country more in favor of intellectual progress, of intellectual independence, more in favor of promoting the higher interests of professional learning. May I venture to go further and to say it is the duty of everyone

who has mind enough to realize its importance, thus to exert his personal influence? The word "duty" has not always an agreeable sound, but it is, as the late Bishop Phillips Brooks once remarked, the one thing on earth that is so vital that it can go through death to come to glory.

Before I close I wish to offer some few remarks embodying the main reasons which induced the old Faculty of Trinity Medical College to join with that of the Provincial University. I regret with all sincerity the passing away of Trinity Medical College; she has done noble work in the past, and her record was one of continued success; her graduates, numbering upwards of two thousand, are scattered over the whole world. Many hold positions the foremost in the ranks of the medical profession; they are to be found in our legislative halls and in positions of public trust, and although Trinity Medical College exists no longer as a teaching body, yet her reputation survives, and her graduates, from their high and distinguished positions, testify to the liberal education which they received at her hands. Our Faculty, however, felt that the progress of medical education to-day was such that its demands could not any longer be supplied by private enterprise or by proprietory medical schools. The use of public and private funds is essential for the advancement of our science, and we could not expect these so long as we existed as a private corporation. We amalgamated relying on the hope that we shall receive both government and private assistance, such as that now so generously given to McGill and many of the great universities throughout the United States. Again, amalgamation was in a degree imposed upon us by the attitude and earnest desire of Trinity University, of which we were indirectly a part. For some years past we knew that federation with the Provincial University was the policy of Trinity University, and we realized that it would take place, and upon its consummation leave our students pratically without a place for graduation. The Provincial University offered us liberal and honorable terms of amalgamation, assuring us that the professorial staff of teachers, the graduates and undergraduates would receive generous treatment. We realized that these were advantages which later we might not have been able to secure. By the arrangement which has been entered into all the graduates in medicine of Trinity secure enrolment and status in the Provincial University, enjoying the same rights as her own graduates in the selection of representatives to the senate and governing bodies of the University.

In conclusion, I can but thank you for your patient hearing, and wish you all the most abundant success in the honorable calling which you have selected for your life-work.

ADENO-MYOME DES UTERUS.

By THOMAS S. CULLEN, M.D.,
Associate Professor of Gynecology Johns Hopkins University, Baltimore.

This "Arbeit" by Cullen was intended for the "Festschrift" of Johannes Orth, of Göttingen, on the completion of his twenty-fifth year as Professor, contributed by his assistants, students and friends, but was not included in the original publication, owing to the fact that it was delayed in transmission and consequently it appears as a separate publication. It deals with the rare condition of adeno-myoma, which consists of the ordinary myoma of the uterus plus the presence in the myoma of glands resembling the normal glands of the uterus.

Myomata are undoubtedly the most frequent form of uterine tumor, and are made up of interlacing bundles of smooth muscle cells resembling those of the normal uterus.

From time to time glandular elements had been described in myomata, and in 1896 Recklinghausen went deeply into these cases and came to the conclusion that these glandular elements arose almost always from the remains of the Wolffian duct, or in other words, had no relation to the normal uterine glands which arise from the duct of Mueller. Cullen undertakes to prove that this is not the case, but that the glandular elements are in the majority of cases direct offshoots from the normal uterine mucosa, and, moreover, that they are or were in direct communication with the cavity of the uterus, although perhaps by tortuous channels.

These adeno-myomata, or myomata plus glandular elements, form a distinct class and are easily diagnosed microscopically, and can often be recognised from the gross specimen, but, as they clinically resemble ordinary myomata and are very frequently associated with them, the diagnosis is not usually made clinically.

The author divides them into three classes for clinical purposes although the distinction is not a hard and fast one:

1. Adeno-myomata in enlarged but normally shaped uteri.
2. Subperitoneal or interligamentary adeno-myomata.
3. Submucous adeno-myomata.

The two latter classes do not differ from the ordinary myomata in their relation to the normal muscle, but the first class extend from the mucosa outwards and may involve half the thickness of the wall or may even extend to the peritoneum. Occasionally they are restricted to the anterior or posterior wall or may be in both together. The thickening is diffuse, and the outer border passes gradually into the normal muscle in

contradistinction to the ordinary myoma, which is sharply marked off from the normal muscle.

Cullen shows by careful microscopical examination and injection experiments that the uterine mucosa is directly continuous with the glandular elements in the diffuse myomatous thickening, and he believes that the same holds true, or at one time did, in the other two classes.

From the peculiar structure of the glands, the stroma, the persistence of the function of the mucous membrane shown by the presence of blood or its pigment in the cysts where the glands can dilate to form such, and from the fact that we know how the normal uterine muscle, by repeated contractions, changes an interstitial to a subperitoneal or submucous myoma, the author concludes as follows:

Every adeno-myoma of the uterus, in which the glandular elements resemble those of the normal uterine mucosa and are surrounded by a stroma such as occurs in the normal uterus, derive their glandular elements from the uterine mucosa or from the duct of Mueller, no matter whether they are interstitial, subperitoneal, submucous, dense or cystic. G. S.

SILK LIGATURE IN INTESTINAL ANASTOMOSIS.

By A. GROVES, M.D., Royal Alexandra Hospital, Fergus.

On July 30th there was admitted to this hospital a patient, female, aged sixty-seven. She was extremely emaciated, and her great complaint was persistent vomiting which had existed for about nine months as a daily occurrence; indeed, during that time she usually vomited several times daily. For five or six years previously she had been greatly troubled with her stomach, with vomiting every now and then. Examination revealed nothing in the way of a tumor, but her stomach was dilated, easily retaining 126 ozs. of fluid. A diagnosis of pyloric obstruction was made, and on August 4th a laparotomy was done. A tight pyloric stricture, apparently the result of an ulcer, was found, and for the relief of this a linear pyloroplasty was done, the wound in the pylorus being put together by means of sutures passing through all the coats of the stomach and duodenum, above which a line of Lembert sutures was put in. In order to provide ample drainage for the dilated and atonic stomach, a gastro-jejunostomy was done, the jejunum at about twenty inches from its origin being united to the great curvature of the stomach about three inches from the pylorus.

To prevent a possible vicious circle, an anastomosis was made between the two limbs of the attached jejunum. In making these anastomoses the method advised by McGraw was used, but instead of a rubber cord a strong silk ligature was passed and tied as tightly as possible. By the sixth day vomiting had entirely ceased, and by the twentieth day she was taking an ordinary diet, including potatoes and meat, the quantity taken at any one time being limited. From this time on she rapidly gained, and expressed herself as being entirely free from any digestive trouble.

Theoretically and practically there does not appear any good reason for using rubber cord rather than silk in these operations; indeed, I think silk preferable, although I have used rubber several times. There is no question that silk will cut through rapidly, even more so, I imagine, than rubber, because it can be drawn tighter; in fact, the tissue caught in the thread is instantaneously strangulated. Furthermore, the crushed tissue will be disintegrated more rapidly when surrounded by an absorbing ligature soaked in digestive fluids, rather than an impermeable rubber cord which, to some extent, protects the crushed tissue.

If, then, silk, or linen which is quite as good, will answer the purpose as well if not better than rubber, it is to be preferred, for rubber is not always at hand, and as it deteriorates with keeping it is by no means reliable, unless quite new. Again, silk in its use requires no special needles or instruments, and is easier to work with, which always counts for something if efficiency goes with it.

The more I use McGraw's method the more I am impressed with its value. Taking all things into consideration it appears to be the safest and best means of making a visceral anastomosis, especially in cases like the above where there is time for the ligature to cut through without danger to the patient.

Selected Articles.

THE FACULTY OF MEDICINE, UNIVERSITY OF TORONTO.

By R. A. REEVE, M.D.

No university can afford to discard a Faculty of Medicine, and our own Alma Mater is, of course, no exception. It cannot, indeed, be denied that a Medical Faculty gains a great deal by being an integral part of a university in spite of the loss to some extent of the autonomy of the purely voluntary medical school. But the gain is reciprocal. The addition of a staff of at least sixty, exclusive of those teaching the medical students on the Arts side in Chemistry, Physics, Biology and Physiology, and of at least six hundred students, must add greatly to the strength of our own university. And this, not only because numbers count but for other reasons. All of the staff proper belong to a profession which has a history and ideals which, at least, tend to develop a good type, and mean work and progress, if for no other reason than that medicine touches all other sciences. There is, too, a community of interest and of sentiment which tells insensibly and keeps alive a proper and healthy ambition on the part of the individual and the body, to stand well and not to be outdone, the wholesome discontent with to-day and the purpose that to-morrow shall be better. Add to this, let me say, advisedly, a loyalty on the part of the Faculty of Medicine which does not begrudge personal sacrifice for the common good. In proof of which one need only point to the action of the Faculty four years ago in its successful effort to secure a new building and provide for its share of the cost, upwards of $100,000, by an annual tax of over $5,000 It is plain, therefore, that the heart-beat of university life must be made the quicker and stronger by virtue of its influence. There can be no doubt also of the great and growing reflex benefit to their Alma Mater of the lively personal interest in her welfare on the part of hundreds going out on the medical side, an earnest of which was given last year by the contribution of upwards of $4,000 to the Convocation Hall Fund by the students of the Faculty of Medicine. One need hardly go into details here in proof of progress in methods and work, but two or three instances in point may be cited: The aim of the Faculty has been to reduce rather than increase the hours of set lectures. It has desired for years, *e.g.*, to curtail those upon materia medica proper, feeling that the old-time treat-

ment of the subject had become wasteful and irksome. In the new order of things begun this session, the course upon crude drugs *per se* gives place largely to the experimental study of the physiological and toxic effects of their active principles carried out in the laboratory and to special practical instruction in the qualities and use of drugs singly and in combination.

A recent advance made possible by the fine suite of laboratories in the department of Physiology housed in the new medical building, is practical instruction in physiological chemistry by Professor A. B. Macallum; and the securing of much better facilities for teaching experimental physiology. Professor Ramsay Wright, also, thereby gains more room for needed expanse in the important department of biology, etc. The new course of experimental physics in charge of Professor McLennan will be a distinct and welcome advance in the practical study of the subjects it embraces.

The new B. & P. course, which enables one to secure B. A. and M. B. in six years, while safeguarding the former degree, will prove a boon to those who wish to gain the distinct advantages afforded by the double course. It is a step towards the point to be kept in view and which has been reached in a very few institutions, a compulsory B.A.

The outlook: That the Faculty two years ago had reason to felicitate itself, at the end of its fifteenth year, was shown by its new building nearing completion and by the unexpectedly large increase of students, and the success of its graduates, not a few of whom had won good positions in Johns Hopkins, Chicago, Cornell, and other universities and institutions. Then still greater promise of a successful future lies in the union with it last year of the Trinity Medical Faculty—as a result of federation—with a harmony and cordiality most noteworthy, adding largely to its strength by virtue of its personnel and of the status and numbers of its alumni. Last year a post-graduate course was begun, and it will be carried on, the large staff permitting of special instruction to practitioners who wish to perfect themselves. A thorough and most practical fifth-year course also was instituted last year, and will doubtless prove increasingly acceptable and useful. Research work has been aimed at as a valuable feature, and in this connection it is most gratifying to record the thoughtful generosity of Mr. P. C. Larkin and his interest in the work and success of the Faculty, in supplying a fund to perpetuate a Research Scholarship which has been in force for several years. There are also available the George Brown Memorial Research Scholarship and the Starr Medals, with doubtless others to follow. The recent munificent gift of $100,000 by Mr. Cawthra Mulock to

provide for an out-patient hospital, with the special proviso that it shall be used for clinical teaching, has caused intense satisfaction. It gives much-needed aid on the eleemosynary side and will do splendid service educationally. It will greatly promote that practical training which the Faculty has always aimed at as a fitting sequel and complement to the thorough grounding in the primary fundamental subjects, and which explains the high proportion of teachers to students of about one to ten. It is ardently hoped that the steps being taken to make Mr. Mulock's fine gift the initial feature of a large scheme which will make unexcelled provision in buildings and equipment, etc., to be utilized by the Faculty, will meet with success. It will bring us much nearer the ideal state of things from our standpoint where the hospital is a great school as well as a splendid charity.—*The Varsity.*

AN EMINENT PHYSICIAN'S VIEWS ON IMMORTALITY.

The brilliant, though pessimistic, address on "Science and Immortality," delivered by Dr. William Osler as the Ingersoll lecture at Harvard University this year, has just appeared in book form. Dr. Osler stands well at the head of the medical profession in America and is accounted the most brilliant orator in his fraternity. He is Canadian by birth, but has spent many years of his later professional life in Philadelphia and Baltimore. His recent appointment by the King of England as Regius Professor of Medicine at Oxford University crowns him as the highest medical authority in the British Empire.

In dealing with the existing conditions of thought in relation to science and immortality, he divides those who think about the question of immortality at all into three classes—"the Laodiceans," or those who, while accepting a belief in immortality and accepting the phrases and forms of the prevailing religion . . . live practically uninfluenced by it"; "the Gallionians," a group "larger perhaps to-day than ever before in history," who "put the supernatural altogether out of man's life and regard the hereafter as only one of the many inventions he has sought for himself"; and a third, "the Teresians," who "lay hold with the anchor of faith upon eternal life as the controlling influence in this one."

Enlarging upon his first subdivision the author says:

"The natural man has only two primal passions—to get and to beget: to get the means of sustenance (and to-day a little more), and to beget his kind. Satisfy these and he looks neither

before nor after, but goeth forth to his work and to his labor until the evening, and, returning, sleeps in Elysium without a thought of whence or whither. At one end of the scale the gay and giddy Cyrenic rout—the society set of the modern world, which repeats with wearisome monotony the same old vices and the same old follies—cares not a fig for the life to come. Let us eat and drink; let us enjoy every hour saved from the eternal silence. . . . Even our more sober friends, as we see them day by day interested in stocks and strikes, in baseball and 'bridge,' arrange their view of this world entirely regardless of what may be beyond the flaming barriers—*flammantia moenia mundi*. Where among the educated and refined, much less among the masses, do we find any ardent desire for a future life? It is not a subject for drawing-room conversation, and the man whose habit it is to buttonhole his acquaintances and inquire earnestly after their souls is shunned like the Ancient Mariner. Among the clergy it is not thought polite to refer to so delicate a topic except officially from the pulpit. Most ominous of all, as indicating the utter absence of interest on the part of the public, is the silence of the press, in the columns of which are manifest daily the works of the flesh. . . . And the eventide of life is not always hopeful; on the contrary, the older we grow, the less fixed, very often, is the belief in a future life. . . . As Howells tells us of Lowell, 'His hold upon a belief in a life after death weakened with his years. Like Oliver Wendell Holmes, 'We may love the mystical and talk much of the shadows, but when it comes to going out among them and laying holding of them with the hand of faith, we are not of the excursion'"

The Gallionians are a class, according to Dr. Osler, more "common among the naturalists and investigators than in men devoted to literature and humanities," who "have either reached the intellectual conviction that there is no hope in the grave or the question remains open, as it did with Darwin, and the absorbing interests of other problems and the every-day calls of domestic life satisfy the mind." The reasons for this attitude are attributed to the conclusions of science, by means of which "the views of man's origin, of his place in nature, and, in consequence, of his destiny" have been entirely modified. To science, "man is the one far-off event toward which the whole creation has moved, the crowning glory of organic life, the end-product of a ceaseless evolution which has gone on for eons, since, in some early pelagian sea, life first appeared, whence and how science knows not." In accounting for the fact that modern psychological science dispenses altogether with the soul, Dr. Osler says:

"The association of life in all its phases with organization,

the association of a gradation of intelligence with increasing complexity of organization, the failure of the development of intelligence with an arrest in cerebral growth in the child, the slow decay of mind with changes in the brain, the absolute dependence of the higher mental attributes upon definite structures, the instantaneous loss of consciousness when the blood supply is cut off from the higher centres—these facts give pause to the scientific student when he tries to think of intelligence apart from organization. Far, very far from any rational explanation of thought as a condition of matter, why should he consider the, to him, unthinkable proposition of consciousness without a corresponding material basis? . . . The new psychologists have ceased to think nobly of the soul, and even speak of it as a complete superfluity."

There is an idea of immortality, which science promulgates. Thus:

"Knowing nothing of an immortality of spirit, science has put on an immortality of the flesh, and in a remarkable triumph of research has learned to recognize in every living being at once immortal age beside immortal youth. The patiently worked-out story of the morphological continuity of the germ plasm is one of the fairy-tales of science. You who listen to me to-day feel organized units in a generation with clear-cut features of its own, a chosen section of the finely woven fringe of life built on the coral reef of past generations—and perhaps, if any, you, citizens of no mean city, have a right to feel of some importance. The revelations of modern embryology are a terrible blow to this pride of descent. The individual is nothing more than the transient offshoot of a germ plasm which has an unbroken continuity from generation to generation, from age to age. This marvellous embryonic substance is eternally young, eternally productive, eternally forming new individuals to grow up and to perish, while it remains in the progeny always youthful, always increasing, always the same. 'Thousands upon thousands of generations which have arisen in the course of ages were its products, but it lives on in its youngest generations with the power of giving origin to coming millions. The individual organism is transient, but its embryonic substance, which produces the mortal tissues, preserves itself imperishable, everlasting, and constant.' This astounding revelation not only necessitates a readjustment of our ideas on heredity, but it gives to human life a new and not very pleasant meaning. It makes us falter where we firmly trod to feel that man comes within the sweep of these profound and inviolate biological laws; but it explains why nature—'so careless of the single life, so careful of the type'—is so lavish with the human beads, and so haphazard in their manufacture, spoiling hundreds, leaving many

imperfect, snapping them and cracking them at her will, caring nothing if the precious cord on which they are strung—the germ plasm—remains unbroken."

The attitude of the scientific student toward the third group, the Teresians, who, like St. Teresa, feel that to them is given to *know* the mysteries, should be, says Dr. Osler, one of reverence. Though his philosophy finds nothing to support it, "the scientific student should be ready to acknowledge the value of a belief in a hereafter as an asset in human life," for "in the presence of so many mysteries which have been unveiled, in the presence of so many yet unsolved, he cannot be dogmatic and deny the possibility of a future state." Moreover:

"He will recognize that amid the turbid ebb and flow of human misery, a belief in the resurrection of the dead and the life of the world to come is the rock of safety to which many of the noblest of his fellows have clung: yet he will gratefully accept the incalculable comfort of such a belief to those sorrowing for precious friends hid in death's dateless night; he will acknowledge with gratitude and reverence the service to humanity of the great souls who have departed this life in a sure and certain hope—but this is all. Whether across death's threshold we step from life to life, or whether we go whence we shall not return, even to the land of darkness, as darkness itself, he cannot tell. Nor is this strange. Science is organized knowledge, and knowledge is of things we see. Now the things that are seen are temporal: of the things that are unseen science knows nothing and has at present no means of knowing anything."

In a concluding word addressed directly to his audience, Dr. Osler says: "Some of you will wander through all phases [of the thought described], to come at last, I trust, to the opinion of Cicero, who had rather be mistaken with Plato than be in the right with those who deny altogether the life after death; and this is my own *confessio fidei*."—*Literary Digest.*

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, H. J. HAMILTON, C. J. COPP AND F. A. CLARKSON.

Cystitis from Bacterium Coli in Infants.

The following case was that of a baby, twenty months old. After three days of high fever Comba examined the urine, finding it turbid, acid, with traces of albumen and crystals of uric acid, polynuclear leucocytes and bacterium coli. He accordingly made the diagnosis of acute cystitis from bacterium coli in a child suffering from uricemia. He prescribed milk diet, alkaline waters, infusion of uva ursi five per cent., and, in succession, benzoate of soda, salol, urotropin, without any appreciable good result.

The fever was continuous, with morning remissions. After thirteen days the baby was still feverish and depressed, refusing even its milk. Comba then injected ten c.cm. of anti-colic serum (Celli-Valenti), and repeated it the following evening. After forty-eight hours both the general and the local symptoms were improved. The urine now showed leucocytes and masses of bacilli coli. The bladder was now washed out with protargol one per cent. With these measures the child gradually made a complete recovery.

On account of the grave nature of the case and the improvement resulting from the injections of anti-colic serum (Celli-Valenti), and the agglutination of the *B. coli* observed in the urine on the days following the injection, and the agglutination of the same bacillus coli in broth-cultures (to which was added the anti-colic serum), Comba felt authorized in regarding this case as one of cystitis, determined by a dysenteric form of *B. coli*.—Translated from *Giornale Internazionale della Scienza Medica*, by HARLEY SMITH.

Spontaneous Coli-bacterial Cystitis in Infants.

From the examination of seven cases of cystitis in infants, Cecchi concludes that the cystitis is due to the *B. coli*. He states, also, that the channel of infection of the bladder (when the possibility of infection by means of catheterism is excluded) is the ascending one—the urethral, not excluding, also, the possibility of infection by the circulatory and transparietal paths. The *B. coli* having reached the bladder, can set up cystitis, given certain special conditions of virulence of the bacterium and of receptivity of the organ.

Ammoniacal fermentation of the urine is not essential to the production of a cystitis. When it does exist it proves only that germs which decompose urea have entered the bladder. In this case, to the action of the bacteria is added the chemical action of ammoniacal urine, and so the cystitis may be more severe. Cecchi has employed in the treatment of these cases Scherny's urotropin and antiseptic lavage.

Professor Baculo (Univ. of Naples) states that the clinical discovery of cystitis in the course of infection by *B. coli* is frequent, both in the first and in the second year of life. In the common forms of auto-intoxication, co-existing with infection by *B. coli*, it is not seldom that one meets such complication announced by irritative bladder symptoms more or less severe, with emission of characteristic urine. Such complication is easily treated with lavage of tepid sterile water and generous doses of salol.—Translated from *Rivista di Clinica Pediatria*, by HARLEY SMITH.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, K. C. McILWRAITH, FRED. FENTON AND HELEN MacMURCHY.

Acute Inversion of the Puerperal Uterus.

This fortunately very rare accident occurred recently in the practice of Mr. Robert Neuschamp, of Guiseley, England, who was called in to attend a patient one week after confinement, and found the above-mentioned condition present. The midwife (who had been the patient's sole attendant previously) called in the physician on account of the collapsed condition of the patient. Mr. Neuschamp promptly made a correct diagnosis, and had the patient conveyed at once to the Leeds Hospital and placed under the care of Mr. Croft, who accomplished the task of reduction by taxis under anesthesia.

The patient progressed satisfactorily, and left the hospital on the 16th day. Examination on that day showed no displacement, and a firmly contracted and normal uterus for the third week of the puerperium. The history of the case indicated that traction on the cord by an ignorant and unskilful midwife had been the chief cause of this catastrophe.

Primary, Intermediate and Secondary Repair of the Anterior Vaginal Wall after Labour.

Under the above title Dr. Barton Cooke Hirst, of Philadelphia, brought before the Section on Obstetrics and Diseases

of Women (American Medical Society) some considerations relating to the time and method of repair of pelvic lacerations. He prefers repairing lacerations five or ten days after labor. These views were opposed by Dr. Price, of Philadelphia, Dr. Bartenshaw, of New York, and others, who pointed out the advantages of repairing the pelvic floor at once, or else waiting until after the puerperium.

Heart Disease as an Obstetric Complication.

Dr. C. S. Bacon, in a recent paper on this subject, urged special attention to the diet, hygiene and exercise of patients with such a complication. He thinks milk is the best food for them. During labor he recommends the inhalation of oxygen to relieve the strain on the heart, and prefers ether to chloroform, if an anesthetic is necessary.

An Emergency Anesthetic Dropper.

T. M. McIntosh, M.D., Thomasville, Ga. (*Charlotte Medical Journal*, June, 1904), suggests the following means of securing an excellent anesthetic dropper when the regular drop-bottle is not at hand: Take an ordinary two-ounce vial with a cork stopper, and cut two small grooves in the side of the cork, running from end to end, on opposite sides. "Thus was made," he says, "the best and simplest anesthetic dropper, one groove being the inlet for air, the other the outlet for chloroform. The size of the grooves can be changed by pushing the stopper in deeper, thus narrowing it, or drawing the stopper out and enlarging the grooves."

An Undescribed Sign of Occipito-Posterior Positions.

A hitherto undescribed sign in occipito-posterior positions of vertex presentations consists in a dimpling of the skin about three-fourths of an inch behind the margin of the anus, in the middle line. It may be seen during the uterine contractions, after the head has entered the pelvis, and is due to the backward pressure of the occiput upon the posterior fibres of the levator ani. These fibres arise from the front of the spines of the ischia, and are inserted into the sides of the coccyx near its tip. The ano-coccygeal ligament, which is attached to the tip of the coccyx, is also adherent to the skin, so that when the tip of the coccyx is raised by the levator ani the movement is also imparted to the skin overlying the ligament, and dimpling results. The sign has not been noticed in every case of occipito-posterior positions observed, but principally in the difficult ones. The reasons for this must be obvious. F. F.

Thyroid Extract in Eclampsia—A Review.

In June, 1901, Dr. Oliphant Nicholson, of Edinburgh, read a paper before the Edinburgh Obstetrical Society on this subject. His theory is that "puerperal eclampsia occurs as the result of some failure in the process of proteid metabolism, and that the failure to deal efficiently with nitrogenous substances is due either to deficiency of iodothyrin or to impaired activity of the secretion. Under these conditions the object of proteid metabolism is not obtained, and the final product—urea—is not manufactured." Further, that when the system is deprived of the vaso-dilator effect of the secretion of the thyroid gland, vascular spasm is produced by the internal secretion of the suprarenal bodies and suppression of urine and defective elimination result. Thus directly and indirectly, too, hypo-thyroidism tends to produce toxemia. A second paper followed in the *Journal of Obstetrics and Gynæcology of the British Empire*, in July, 1902, in which four cases were cited by Dr. Nicholson in support of the thyroid treatment. The favorable results claimed were: 1, Re-establishment of di-uresis and disappearance of albumen; 2, disappearance of nausea and vomiting; 3, reduction of pulse-tension; 4, possibly some specific action. In three of these cases, however, the child died *in utero*, and the improvement in the symptoms may possibly have resulted from this fact.

In January, 1903, at the Edinburgh Obstetrical Society, Dr. Linn cited two cases in which the thyroid treatment had done no good. At the same meeting Dr. Nicholson reported two more cases in which it had done good, and spoke of the importance of having a fresh and active preparation of the gland.

In the *Journal of Obstetrics and Gynæcology* for January, 1904, Dr. Nicholson gives the history of another patient treated with thyroid, and subjoins pulse-tracings showing the effect of the remedy in reducing pulse-tension. This history also shows that the quantity of urine increased greatly as the pulse-tension fell, and the patient's other symptoms improved.

In the June number of the same journal Lieut.-Col. Sturmer, of the India Medical Society, Superintendent of the Government Maternity Hospital at Madras, gives statistics of forty cases of eclampsia in which thyroid extract was given in addition to morphia and saline injections. The figures for the previous years are as follows:

	Cases	Recoveries	Deaths	Per Cent.
1871	16	9	7	44.4
1881	15	8	7	46.4
1891	23	21	3	13.0
1901	25	14	11	44

This seems to us a very high death rate. The author explains

it on the grounds that many of the patients are brought long distances and are moribund on admission to the hospital. Under thyroid treatment—forty-one cases—the death rate was 12.2. The writer states that "the symptoms of giddiness, disordered vision and vomiting passed away, and in one case the urine increased from a few ounces to 120 ounces in twenty-four hours." The present writer has given thyroid in two cases in which eclampsia seemed to threaten. Lessened pulse-tension and increase of the quantity of urine certainly followed. The late Dr. Milne Murray reported one case in which a condition of extreme asthenia with rapid pulse followed the use of thyroid. The patient recovered.

Whatever may be said of Dr. Nicholson's theory, the practical results of the use of thyroid seem to warrant one in giving the remedy a further trial. The dose given in the pre-eclamptic stage is from 5 to 20 grains in twenty-four hours, according to the severity of the symptoms. In case of convulsions as much as 85 grains were given in twenty hours in one case.

K. C. M.

OPHTHALMOLOGY AND OTOLOGY.

IN CHARGE OF J. T. DUNCAN, M.B., M.D., C.M.

Ocular Symptoms in General Paralysis of the Insane.

Joffroy, *Archives de Neurologie*, 101, 1904, Vol. xvii, has an excellent clinical lecture on this subject, and reviews these symptoms, emphasizing especially their diagnostic aid in the early stages of paresis.

He has studied the ocular changes in 227 cases of paresis. His examinations were made with great care at the time of first admission, and in the majority of the cases, therefore, in the primary stage of the disease. Out of 227 cases, 212 presented ocular disturbances and the remaining 15 would probably have shown them at a later period, but as a rule only one examination was made in each case, and that upon admission.

The iris is the part of the eye chiefly affected; in its dimensions, form, or in its mobility (either to light or in accommodation), though, of course, in lesser frequency other ocular abnormalities may be present.

Inequality of the pupils (Baillarger) was found 144 times out of 227 cases; to this must be added complete double mydriasis 26 times, and extreme double myosis 29 times, *i.e.*, there was pathologic modification in dimensions of the pupils in 87 per cent. of his cases.

Irregularity in the Form of the Iris.—Departure from the

normal circular form of the iris is very frequent. Care must be taken to exclude synechiæ, traces of previous specific iritis. Both pupils were changed in shape, irregular shape (not circular) 93 times out 125 examinations; monocular deformity was found 8 times. In two cases of pupillar deformity there was no abolition of the light reflex, but in both of these cases this reflex disappeared later. Deformity of the pupils like the Argyll-Robertson phenomenon is not a symptom found exclusively in paresis, but like the latter occurs in syphilis and in tabes.

Joffroy, however, thinks it often occurs before the disappearance of the pupillar light reaction, and is in a way the precursor or the equivalent of the latter. The iris may be involved in its function. The iris changes it size—dilates or contracts, according as the eye is placed in shadows or in a bright light. This constitutes the light reflex.

The light reflex is almost constantly changed, the accommodation reflex only rarely. The loss of the former with the coincident persistence of the latter, is the Argyll-Robertson phenomenon.

Joffroy emphasizes the difficulty of distinguishing between the two, and points to the fact that unless our examination be carefully made an accommodation reflex will be obtained which will be erroneously considered a light reflex.

He gives his method of procedure, the object of which is to exclude the accommodation reflex.

His method of procedure consists, in brief, in the illumination of the eyes from a source of light behind the patient. The patient is made to read the letters on a test chart (if his mental condition permits) at a distance of four to six metres, which relaxes the accommodation. The examiner stands to one side, but not in front, of the patient, and the light is reflected into the patient's eyes by a mirror. Thus the light reflex may be obtained isolated surely from the accommodation reflex. Another method is to place the patient with his back to a window and have him fix on an object at a distance of about five metres. The size of the pupils is observed thus, whereupon turn the patient's face to the window and have him look at a distance. If the light reflex is present the size of the pupils should be less than when the back was turned to the window.

Joffroy found the light reflex affected in 75 per cent. of his cases as follows: Abolished both sides, 103 times out of 227; abolished one side and weak on the other, 14 times; weak on both sides, 35 times; abolished one side and normal on the other, 9 times; weak on one side and normal on the other, 10 times.

In conclusion, Joffroy thinks that alterations in the light reflex is one of the most valuable of the early signs in the diagnosis of this disease; of great value, also, is the determination of the irregularity in the contour of the pupils.

Atropine versus Eserine in Glaucoma.

Searles, whose article on the use of atropine in glaucoma was abstracted previously, has, in the August number of the *American Journal of Ophthalmology*, a very suggestive article, "Atropine *versus* Eserine in Glaucoma." Eserine being a myotic and atropine a mydriatic, and eserine being admittedly anti-glaucomatous, the other is supposed to be directly the opposite. In elaborating his argument Searles shows that the myotic power of the one drug and the mydriatic power of the other must be set aside—that the supposed thickening of the periphery of the iris does not produce glaucoma, but that glaucoma depends "more upon an excess of blood in the uveal tract than upon an excess of intra-ocular fluids" (Priestley Smith). He then states that if a drug will lessen the blood in the uveal tract, the high tension will be reduced, and the glaucoma be in a fair way to recovery. Eserine will undoubtedly reduce the blood in the uveal tract, therefore it is anti-glaucomatous. Atropine will also reduce the blood in the uveal tract, therefore it is anti-glaucomatous. "Atropine, then, is never responsible for increase of tension. It is a contradiction of the definition of the action of atropine to say it can be. If, then, it is not material whether a drug is a mydriatic or a myotic as regards glaucoma, the whole mystery is cleared away and eserine at once is seen to range itself by the side of atropine." . . . Priestley Smith assists eserine by adding cocaine, because it has the power of contracting the ciliary blood vessels. "And yet," says Searles, "cocaine is mydriatic. What may we expect when cocaine is added to atropine . . . in facing glaucoma? It renders atropine invincible."

"Glaucoma has at last met the force that is able to subdue it. It is an old familiar one under new conditions. In the hands of the writer, after twenty years of research and practice, it has become a 'live wire' and easily does the work. It outranks iridectomy." Searles treats any glaucoma supposed to be caused by atropine by a further exhibition of atropine aided by cocaine, and, internally, by jaborandi and morphia.

Acute Purulent Otitis Media.

In an article on this disease, Frederick T. Clark, of Noble Hospital, Westfield, Mass., gives the following admirable directions in regard to prophylaxis:

Bearing in mind that the micro-organisms gain entrance

to the middle ear from the naso-pharynx, we must in all such diseases as influenza, scarlet fever, measles, diphtheria, etc, irrigate the nasal cavities and naso-pharynx every six hours (four times a day) with a warm, alkaline solution, Seiler's or Dobell's, using two quarts, at least, on each occasion.

The ordinary fountain syringe will answer well. It should be hung with its lower end not more than a foot above the patient's head. The small hard rubber tip, or no tip, should be used. The patient's head should be inclined well forward over a basin. If the patient be too young to co-operate, its arms should be wrapped firmly to its sides with towelling, and the nurse should take it in her arms, at the same time seeing that the child's head is inclined well forward. In this position the end of the delivery tube should be gently inserted, the liquid allowed to flow through, discharging by the opposite nostril. Then the delivery tube should be inserted into the opposite nostril, thus insuring a thorough cleansing of both sides. If these directions are followed there need be no fear of forcing the infection into the eustachian tube. Then let the patient gently blow out the nostrils and spray each nostril (having the patient inhale at the same time), with some such antiseptic protective as the following:

℞ Phenol ..... gr. ii.
Menthol ..... gr. iii.
Eucalyptol ..... ♏ xx
Benzoinol ..... q. s. ad ℥ i.

Such management of these cases, if begun early and carried out thoroughly, will be successful in preventing many attacks of purulent otitis media that would otherwise develop.

LARYNGOLOGY AND RHINOLOGY

IN CHARGE OF J. PRICE-BROWN.

Nasal Dilators for Continuous Dilatation of the Anterior Nares in Cases of Nasal Obstruction. (J. LUMSDEN, *Jour. Laryn., Rhin. and Otol*, July, 1904.)

This is a little instrument which is said to be particularly applicable for use at night time. It dilates the nostrils widely, and allows a free inward current of air, carrying backward any discharges that may occur. Of course, it could only be used temporarily, as constant stretching of the dilator muscles would destroy their normal power.

A Contribution to the Study of the Secretory Mechanism of the Nose. (J. L. Goodale, *Boston Medical and Surgical Journal*, September, 1904.)

The author draws attention to two arrangements in the nasal mucosa by which the nasal fluids are produced, namely, the glands, and the intercellular, epithelial spaces of the underlying basement membrane. He then indicates the changes produced in the glands of the mucous membrane, and in the canals of the basement membrane in different pathological conditions, such as hypertrophic inflammations, atrophic inflammations, and vasomotor rhinitis. In the first we have increased activity in the mucous glands; in the second, a disappearance of the canals of basement membrane, with still some action of the mucous and serous glands; in the third we have increase of looseness of structure of the epithelium, and also increase in the number and size of the basement canals, with consequent increase of secretion.

Notes on Nasal Suppuration. (J. Mackie, *Jour. Laryn., Rhin. and Otol.*, October, 1904.)

In a paper dealing with the etiology and treatment of the various divisions of this troublesome condition, the writer submits the following conclusions for our consideration:

1. That the essential cause of nasal suppuration is defective drainage.

2. That defective drainage is mainly due in childhood to adenoids and lymphoid hyperplasias.

3. That later it is the result of hypertrophies and deformities, resulting from lymphoid hyperplasias during the period of active growth and development.

4. That by adopting this view of the natural history of nasal suppuration, the whole subject becomes more intelligible, and a simpler and more rational treatment becomes possible.

Curative Effect of Erysipelas upon Atrophic Rhinitis. (Valentine Levi, *The Therapeutic Gazette*, March, 1904.)

This is the history of a single case occurring in a man, aged 37 years, in which the atrophy was cured by two successive attacks of erysipelas. Hypertrophy of the shrivelled turbinates followed. The suggestions that the author makes are the following:

1. The diametrically opposite nature of the pathology of the two diseases. 2. The action of the bacterial products of erysipelas on certain other diseases.

Endo-Nasal Injections of Paraffin in the Treatment of Ozena. (H. de STELLA, *Archives de Laryngologie*, May-June, 1904.)

The writer uses paraffin with a melting point about 120° Fahr.; also a long, narrow Broeckaert syringe. The instrument is filled with the melted wax, and placed in water of a temperature of 150° Fahr. Then, after cleaning the nasal passages and cocainising the inferior turbinates, the wax is slowly injected about the middle of the turbinate in its posterior half, first on one side and then on the other, at the one sitting. It is better to inject small quantities repeatedly rather than a large quantity at one time. The anterior halves of the turbinates are done later. There is sometimes a good deal of reaction and pain; but the writer has never had any phlebitis or embolism or any other untoward result. His conclusions are that in early cases and in simple atrophic rhinitis the cure is complete. In bad cases, in which the bone and middle turbinate are involved, the condition is so much improved that the patient's friends cannot detect any odor.

Nasal Reflexes. (RÉTHI, *Monatsschr. f. Ohrenheilk*, January, 1904.)

Réthi removed the anterior half of the left middle turbinal from a man suffering from empyema of the anterior and middle ethmoid cells on the same side, after which he inserted a tampon. Two hours later he lost, to some extent, the control of the right leg. It felt heavy, and the sensation in it became less certain than in the other. The condition continued for twenty-four hours, when the tampon was removed and the symptoms disappeared.

In another case the left inferior turbinal was removed from a woman, and the nose packed. The next day the patient's gait became unsteady. She felt giddy and staggered in walking; but there was no dragging or weakness in the legs. On removal of the tampon the symptoms disappeared.

In a third case a hypertrophied middle turbinal was removed and a tampon placed. On his way home the patient became giddy, the giddiness persisting whatever position he assumed. There was no paresis. On removal of the tampon the giddiness ceased.

The symptoms quoted in these cases may have been reflex; but they might also have been pressure symptoms, due to the intimate relation which exists between the nasal lymphatics and the subdural and subarachnoid spaces.

Deviations of the Nasal Septum. (COOLIDGE, *Boston Medical and Surgical Journal*, May, 1904.)

The writer regards deviations and spurs of the nasal septum

as chiefly due to the natural asymmetry of the skull, bearing upon the thin osseo-cartilaginous plate, held firmly in a bony frame, and trying to grow forward. Each individual case demands its own special method of treatment.

Tonsillitis, a Cause of Acute Nephritis. (J. L. Morse, *Archives of Pediatrics*, May, 1904.)

The author dwells upon the neglect which this subject has received. When considered from a bacteriological point of view it is not surprising that nephritis should be occasioned by tonsillitis, inasmuch as streptococci figure largely in tonsillar inflammations. Morse reports four cases which he had recently seen, two occurring in children, two in adults. In each case scarlatina and previous renal disease were positively excluded. The importance of examination of the heart and also of the urine in all cases of tonsillitis is urged.

Removal of a Foreign Body from the Trachea by Direct Laryngo-Tracheoscopy. (D. R. Patterson, *Jour. Laryn., Rhin. and Otol.*, August, 1904.)

This occurred in a girl aged eight years. Laryngeal obstruction had existed for a week. When examined, she was not hoarse, but by means of the laryngoscope, a glimpse of a foreign body situated below the glottis could be obtained. As the dyspnea became very great a low tracheotomy was done. Then, the pharynx and larynx having been cocainised, a good view of the body was obtained through Killian's tracheoscope, and it was extracted by means of a crocodile forceps. It proved to be a stay-eyelet, covered with calcareous incrustations.

Query: Was it possible for the deposit to have formed in so short a time? Might not a foreign body of so small a size remain within a bronchial tube for some time, without exciting any noticeable symptoms?

Abscess of the Thyroid Body. (Mayo Collier, *Jour. Laryn., Rhin. and Otol.*, July, 1904.)

This is the report of a case of unusual interest, inasmuch as the operation for relief was attended immediately by fatal results. The patient was a man suffering from an enormous swelling in the neck, which had been developing for about two weeks. When seen by the writer he could only breathe in one position. The previous history was, that he had suffered from a swelling on one side of the neck for a long time; and that for two years it had been subject to fluctuations in size. The recent most severe seizure of all was believed to be due to an attack of influenza.

The patient was cyanosed, and could only get enough air to keep life in him. On examination, no distinct cyst could be found. Finally, a low tracheotomy became imperative with the hope of giving relief. An incision about three inches long was made in the middle line, and the tumor was practically isolated. The hemorrhage was very severe from the engorged veins, at this stage of the operation, and the patient showed signs of asphyxia; but the trachea was opened low down in the neck and a tube inserted. Artificial respiration, injection of strychnia, and ammonia to the nostrils had no effect. The patient never breathed again.

The post-mortem examination revealed an undiscovered cyst, as large as a goose egg, pressing directly upon the trachea, which, by reason of the influenza, had suddenly become enlarged. The swelling was limited to the left lobe of the thyroid. When opened, it was found to contain thick, chocolate-colored, extremely-offensive pus. The cyst was adherent to the carotid sheath, and had not been opened during the tracheotomy. The rings of the trachea showed no signs of abrasion nor atrophy from pressure, and both recurrent nerves were apparently sound. The muscles and valves of the heart were sound but the lungs were edematous.

Editorial.

DR. JAMES H. RICHARDSON.

Dr. James H. Richardson is the oldest physician in Toronto, and the oldest consulting surgeon on the staff of the Toronto General Hospital. He was eighty-one years of age, October 16th, and the members of the visiting staff of physicians and surgeons sent him their congratulations and best wishes on that day. The venerable doctor is still in the enjoyment of excellent health, with all his faculties and senses unimpaired, and is actively engaged in professional work as surgeon of the Toronto Jail. He also takes an interest in outdoor sports, and curls in winter and bowls in summer with all the enthusiasm of a boy.

Dr. Richardson received his preliminary education in Upper Canada College, and in 1841 went to Rochester, where he studied medicine under Dr. Rolph for two years. He returned to Toronto in 1843, and attended the first course of lectures delivered by the Medical Faculty of King's College. He went to England in 1844, and studied at Guy's Hospital, London, three sessions. He became Member of the Royal College of Surgeons, England, in 1847, after which he returned to Toronto and commenced practice. In 1850 he was appointed Professor of Anatomy in the University of Toronto, and held the chair until the University teaching faculty was abolished in 1853. He was afterwards Professor of Anatomy in the Toronto School of Medicine and in the re-established Medical Faculty of the University of Toronto.

We are pleased to be able to state that his wife, to whom he was married fifty-four years ago last August 20th, is still alive and well. Their reception at their house on St. Joseph Street, in the afternoon and evening of their golden wedding day, was a delightful social function which will be ever remembered by those who had the pleasure of attending.

Another interesting function was the banquet tendered to Dr. Richardson, April 13th, 1903, when a portrait in oil, by Mr. Dixon Patterson, was unveiled. We quote as follows from the address presented by Professor Ellis, on behalf of the "old pupils": "To the foundations laid by you and your colleagues

in the Toronto School of Medicine, the University of Toronto owes, in no small measure, the success of her Medical Faculty; and we, your scholars, owe to you, our master, for sound teaching and kindly help, for high ideals and a worthy example, a debt which we can never repay but which we are proud to acknowledge. We feel, therefore, that the building which is about to become the home of the Medical Faculty of the University of Toronto could have no fitter ornament to decorate its walls than the portrait of one who has so many claims as yourself upon the grateful remembrances of every graduate."

A POPULAR FALLACY.

A few years ago it was discovered that the Province of Ontario, in company with many of the older countries, had a decreasing birth rate, the cause of which was attributed mainly to the artificial prevention of conception and abortion. No doubt the latter is a very important factor in lessening the birth rate, but it is a moot point whether it is a cause of the recent decrease. There are records to prove that the Chinese women practised this crime twenty centuries *before* the Christian era, and it would be difficult to say that now, twenty centuries after the birth of Christ, the vice is more prevalent.

But the fallacy lies in supposing that the prevention of conception is at the root of the matter. At the same time that the legitimate births are decreasing, the illegitimate births are also decreasing—"because," say the exponents of this view, "the unmarried people are becoming more moral!" Or, to reduce the argument to an absurdity, that marriage encourages immorality!

There are so many sides to this question that a ready answer is not forthcoming. While our grandmothers were married often at 16, we find that the average age at marriage of a professional man is now 32 and his wife 27. This means a very material lessening of the years of child-bearing. It is possible, too, that the birth rate has waxed and waned in obedience to economic laws, and that the number of births is but an index of the general prosperity of the country.

Certain it is that the artificial prevention of conception is far from being the most important factor in our decreasing birth rate, for this evil is of comparatively recent introduction, while the birth rate in England in 1840 was almost the same as it is to-day. When we have records over a longer period than at present, we may be able to trace a regularity in the wanes of increase and decrease, and arrive at a more definite conclusion of their cause. F. A. C.

University Senate—Recent Elections.

The following results of the Senate elections were announced on Monday, October 10th:

Faculty of Arts: University College—Professor Baker, Professor De Lury, Mr. Wm. Dale, Mr. A. B. Aylesworth, K.C., Professor J. C. McLennan, Mr. James Chisholm (Hamilton), Professor W. J. Loudon, Professor A. B. Macallum, Mr. J. H. Coyne (St. Thomas), Mr. W. T. White (Toronto), Professor Wrong, Mr. John King, K.C. . . . Victoria College—Professor Reynar, Mr. Justice Maclaren, Professor Bain, Professor Horning, Mr. C. C. James.

Faculty of Medicine.—The vote was as follows: Professor G. A. Bingham 812, Professor I. H. Cameron 799, Professor Adam H. Wright 785, Professor J. Algernon Temple 740, Dr. W. H. B. Aikins 712, Professor J. M. MacCallum 365.

Graduates in Law: Mr. Justice Street and Mr. W. R. Riddell, K.C.

High School Representative: Mr. C. A. Mayberry (Stratford), Mr. J. E. Wetherell (Strathroy).

Trinity College (by acclamation): Mr. James Henderson, Mr. Christopher Robinson, K.C., the Rev. Canon Welch, Mr. J. A. Worrell, K.C., Professor A. H. Young.

Graduates in Applied Science and Engineering: Mr. C. H. Mitchell.

Sir Wm. Meredith was elected Chancellor without a contest.

IN THE HIGH COURT OF JUSTICE.

Introduction.

Mrs. Lucy Jane Stickle was admitted to the Asylum for Insane, Toronto, on January 22nd, 1904. The certificates were issued by Drs. W. F. Bryans and G. B. Smith. She was let out on three months' probation, on January 30 h. She immediately entered an action against the doctors, asking for ten thousand dollars ($10,000) damages. Mr. John Macgregor was her solicitor; Mr. George Wilkie appeared for Dr. Bryans, and Mr. D. Taylour English for Dr. Smith. The following is the Judge's charge and the jury's verdict. The trial extended over four days—October 6th, 7th, 8th and 10th, 1904. Chancellor Boyd's charge was such a clear and correct presentation of all the facts in the case that numerous requests were made for a copy of his address. In response to these requests a number of copies were struck off.

STICKLE *vs.* BRYANS *et al.*

Tried before the Hon. Sir J. A. Boyd, at Toronto, Oct. 6th, 7th, 8th and 10th, 1904.

The following is a synopsis of His Lordship's charge to the jury:

Charge.

"Gentlemen of the Jury, we cannot pretend to go minutely into all these different contradictions. The general facts of the case are pretty well established before you. We have been at this case for four days, and it is one of a series of difficulties which this family have got into, which have been occupying the attention of the panel of jurymen at this court for a considerable time. You have heard about another case, which is on this list, of Stickle against Flick, which occupied the court for some length of time. I do not know whether any of you were in that case, but of that you were told in this evidence here to-day—and that is all I know about it—that there was a verdict given against Mr. Flick for improper connection with Mrs. Stickle, who is the plaintiff in this case. That jury believed she was guilty, and found her so, with Mr. C. G. Flick, who is one of the names very often mentioned in this litigation.

Now, what is the history of this family so far as we find it out? A very sad and deplorable history, painful to anyone to have to wade through it; but about this there is no manner of doubt; all the witnesses agree that this woman was addicted

to the use of liquor, strong liquor. She herself admits it; her qualification is that she never took it to excess. Well, what may be excess to one person would not be to another. The evidence of the many witnesses is that she was frequently under the influence of liquor. Dr. Rose, who has been referred to as her own physician, tells you that he attended her for drunkenness on several occasions in 1903. Mr. Flick, her friend that she relied upon apparently in preference to her husband, tells you that he went to the Walker House with her mother to bring her home, and that she was then under the influence of liquor. Mr. Flick tells you, "I have given her liquor myself," and we know that on the 5th January, 1903, after her husband had reproached her with improper familiarities with Flick, which was at the end of the year, or the beginning of that year, a few days afterwards, on the 5th January, she rises out of bed and goes at a late hour with Miss Young, who accompanied her, she goes to Mr. Flick's room, infatuated apparently in that way.

What is the position of Dr. Bryans and Dr. Smith? These are professional gentlemen. They are just like the lawyers that are employed. They are the men who have the task of examination just as lawyers have. They have to be found qualified for the discharge of the important duties that are entrusted to them, just as lawyers have. They have a standard that they have to live by, according to their professional rules and regulations, and these gentlemen are reputable members of that profession. It is their business and duty to come when they are called for. Those gentlemen did not thrust themselves forward here; they were called for and obeyed the call, and came to that house and dealt with that patient as they tell you, and the question is whether you believe them or not, or whether you have any right to disbelieve them; and they tell you they dealt with her according to the best of their ability. Now, what was her condition? The evidence as to the particular points of time, which were important, is this: They were sent for on the 16th. That night before they came the mother, Mrs. Evans, says that the daughter was shouting and cursing and swearing, and following her husband about, that she followed him downstairs, that she called him bad names, "and said she would pull my hair out." Miss Young says the same thing. That night before Dr. Bryans and Dr. Stenhouse came she chased the mother, used profane language, and said she would kill her. This was the state of affairs on the 16th. The next day she was in the same condition. So that Miss Young and Mildred tell you they were terrified, and the mother told them to send for the doctor, and Mildred, the daughter, went in next door and sent a telephone message for Dr. Bryans to come and

bring someone with him, and he came and brought Dr. Stenhouse to the house on the 16th.

Now, these doctors tell you—and it is a fact, no doubt—that there is not the stigma attached to going to the asylum that there used to be. The object in going to the asylum is to keep the patient separate from all the ordinary influences, and the doctors thought that it was only professional and scientifically right that she should be kept away, but it was the kindest thing for her. She was open for anyone who would come and tempt her with liquor. Did they want to have that scene of Davenport and the King Edward Hotel repeated again by her? She was not fit to be trusted. She did not know herself sometimes what she was doing. She tells you that she could not recall after she recovered from these conditions what had taken place. She tells you she procured an abortion on herself. The doctors say she told them so. It may be she told them and forgot it. It may be she did not procure it, but told them because she had that impression. Dr. Rose attended her for a miscarriage in January, 1903. But there is the way it came before the doctors.

I am going to leave you some questions, and I was giving you a sketch of the case, the salient points of the case, in order that you might deal with it intelligently. Now, the doctors having that information, the one, the family physician, having seen her on the 1st January, 1904, having heard all the details from the family, the mother and daughter, and father and uncle John, and Miss Young, which they have sworn to-day are true, they draw these certificates. You are not to examine these with a microscope to see whether every word is right. They are substantially true. On the 16th and 17th January Dr. Bryans did not see and examine this woman, not by laying hands upon her, but seeing her manner and observing her. The same thing occurred with Dr. Smith. He did observe her for years. So these certificates are substantially true.

The question is not whether they acted negligently, but whether they had reasonable and probable cause for signing the certificates, and to enable you to come to an intelligent result I will put questions to you.

1. Was the plaintiff of unsound mind on January 22nd, 1904?

You may find that just as you think upon this evidence. The doctors say that she was, but you may pass your opinion upon it as a matter of fact, whether she was or not. That does not determine the case so far as the doctors are concerned, because the second question is—

2. Did the defendants honestly believe that the plaintiff was of unsound mind?

When they put their names to this certificate they were

acting as professional men, and their reputation was at stake. They were not getting any money. One man got $17, I do not know what the other man got. In view of all the facts, did they honestly believe the plaintiff was of unsound mind?

3. Did the defendants take reasonable and proper care in informing themselves of the material circumstances connected with the plaintiff's mental condition?

They saw the plaintiff and asked her husband and mother and members of the family, and the information they got they put on this paper, and it is sworn to by all the members of the family. They did not ask the neighbors. It is not usual to do that. The neighbors do not know as much as the people in the house, and although the neighbors have sworn they did not think she was insane, it is not the man of the street, or the man next door that can tell about the condition of affairs in the house. It is the man who wears the shoe who knows where it pinches. It is the husband and mother who would rather cover this thing up than expose it. Were not the doctors acting reasonably, with as great discretion and judgment as could be without going around the neighborhood and enquiring? It is for you to say. The next question is—

4. If you think they did not exercise such care, in what way did they fail to do so, if you think they failed?

5. Were the defendants actuated by any improper or unprofessional motives in signing the certificates of January 22nd? If you think they were influenced by improper motives say what they were.

6. If, in your opinion, you think the plaintiff should get damages from the defendants, say how much?

If you take these questions and answer them to the best of your ability, that will no doubt dispose of the case, outside of the questions of law, which I will not trouble you with.

(The jury retire at 5 p.m.)

At 6.30 the jury are brought into court.

His Lordship—I wish to tell you what I did not tell you before, that if there is disagreement in coming to an agreement among you, that any ten of you can agree on a verdict. Any ten of you can agree to answer these questions. I hope you will make an effort to come to a conclusion on the matter, because no jury will ever be in as good a position as you now are to deal with the case. You have heard all the evidence, and it cannot be tried again till a much later period, when the recollection of the people will not be as good as it is now. A great expense has been gone to on both sides in getting the case ready for trial and going through it. Four days have been occupied and it would be an unfortunate thing if this case should come to second trial. I hope you will go back and

endeavor to come, if not to a unanimous result, ten of you to agree.

Juryman—May I ask a question?

His Lordship—Yes.

Juryman—Had Dr. Smith visited the patient more recently than the 1st of January?

His Lordship—He said he visited in November. Perhaps Dr. Smith can state now.

Dr. Smith—I was at the house in November and December, and while I did not interview her personally I inquired fully concerning the patient from the family. I learned how she was getting on. I saw her on January 13th, 1904.

(The jury retired.)

(At 7 p.m. the jury return.)

His Lordship—You answer the questions as follows:

1. Was the plaintiff of unsound mind on January 22nd, 1904? Ans. Yes.

2. Did the defendants honestly believe the plaintiff was then of unsound mind? Ans. Yes.

3. Did the defendants take reasonable care in informing themselves of the material circumstances connected with the plaintiff's condition? Ans. Yes.

4. Were the defendants actuated by improper or unprofessional motives in signing the certificate? Ans. No.

The result is a verdict for the defendants.

Statement of Case by W. F. Bryans, M.B.

In February and July, 1903, I saw Mrs. Stickle professionally at her home. On both occasions she was suffering from excessive use of alcohol. From her history and from her condition on those occasions I regarded her as a chronic alcoholic. On my advice she was moved to the Homewood Retreat at Guelph. I had advised that she be kept there for at least one year. She, however, was there only one month. She continued drinking to excess and became very much worse. The outbreaks were more frequent. On one of these occasions she was found late one night asleep on the floor of a traveller's room at the King Edward Hotel. She was naked, except a small undershirt. She was frequently unable to reach home alone. When at home she kept the family awake almost all night. This frequently occurred, whether she was drunk or sober. On several occasions she attempted suicide. Twice she took poison. She threatened violence toward members of her own family.

On January 16th I was again called, as Dr. G. B. Smith was not available. Dr. John Stenhouse accompanied me, as I was

asked to bring another doctor. From her conduct during the two hours and a half spent in her house on that occasion I concluded she was insane. Dr. Stenhouse was of the same opinion. I advised that she be removed to the Asylum for Insane. Before filling out the certificate I consulted Dr. G. B. Smith, who had been the family physician five years. He agreed she was insane, and should be in an institution. However, as I found it difficult to be sure that her conduct and symptoms could not be accounted for by alcoholism only, I concluded to consult Dr. Beemer, Superintendent of the Mimico Asylum for Insane. I took her husband with me, and placed the facts before him, and asked his opinion as to the best course to follow. He expressed his opinion that she was insane and should be in an asylum. My reason for consulting Dr. Beemer was that I expected to have her placed in the Mimico Institution. Therefore, having my own opinion confirmed by the opinion of Dr. G. B. Smith, Dr. Jno. Stenhouse and Dr. Beemer, I procured the necessary papers and filled them out. Dr. Smith, being the regular family physician, was asked to fill out the second paper. I should say I saw her on Jan. 17th also. She was removed to the Queen Street Asylum on the 22nd January. She was let out on January 30th on probation and committed to the care of her brother. Why was she let out? At the solicitation of friends outside her own family, instigated, I believe, by Mr. Sidney Patterson and Mr. John McGregor, her solicitors. Mr. McGregor also threatened proceedings against Dr. Clark. Dr. Clark declined to fight the matter out, taking the ground that he had not had time enough to observe her conduct and decide whether she was sane or insane.

We were asked for $5,000 each.

We were accused of assault because we had forcibly given her hypodermic of morphine.

We were accused of trespass, as she states the house is hers, and she had not called us.

We were also accused of conspiracy with her husband to deprive her of her liberty.

We feel the action was entirely unjust. The Judge and jury took the same view. It cost us three hundred dollars each, besides time and worry. *Moral*—Join the Medical Defence Association.

Personals.

Dr. Clarence L. Starr has removed to 224 Bloor Street West.

Dr. George Elliott has removed from 129 John Street to 203 Beverley Street.

Dr. W. J. Harris has been appointed Assistant Physician at the Toronto Asylum.

Dr. D. M. MacLennan has removed from Carlton Street to 106 Bloor Street West.

Dr. A. T. Steele (Tor. '01), of Shelburne, was married to Miss Barrell, September 13th.

Dr. G. A. Hassard (Tor. '97), of Harold, was married September 14th, to Miss Rose.

Dr. W. Russell Cook (Tor. '00), of Elmwood, was married to Miss Bruels, August 17th.

Dr. Nathl. D. McKichan (Tor. '00), of Hamilton, was married August 2nd to Miss Brandon.

Dr. George A. Anderson (Trin. '00) was married to Miss Millard, of Newmarket, June 29th.

Dr. Colin C. Campbell (Tor. '01), of Sault Ste. Marie, Mich., was married July 18th to Miss Cunard.

Dr. Edmund E. King, of Toronto, visited St. Louis and neighboring cities on October 22nd-31st.

Dr. Herbert Hamilton, of 329 Church Street, Toronto, returned from England and resumed practice October 17th.

Dr. W. D. Ferris (Tor. '98), of Edmonton, North-West Territory, was married to Miss Swanzey, August 24th.

Among those who attended the meeting of the British Association for the Advancement of Science held at Cambridge, September 17-24, were Professors J. Mavor, W. R. Laing, I. H. Cameron, A. B. McCallum and J. J. MacKenzie, of the University of Toronto.

Dr. Herbert A. Bruce, of Toronto, returned from Atlantic City, October 17th, and has quite recovered from the effects of appendicitis. We desire to congratulate him on the satisfactory termination of his vexatious suit in the High Court of Justice, Brampton, of which we shall give full particulars in our next issue.

Miss Elizabeth Gordon, who was for some time Head Nurse of the Emergency Branch of the Toronto General Hospital, has been appointed Lady Superintendent of the Kingston General Hospital.

Dr. P. H. Spohn, for some years Physician to the Reformatory for Boys at Penetanguishene, Ont., has been appointed Superintendent of the Asylum for the Insane which recently took the place of the reformatory.

Dr. J. P. Mitchell, Assistant Physician at the Toronto Asylum, has been appointed Assistant Physician at the Brockville Asylum, in place of Dr. R. W. Bruce Smith, recently appointed Inspector of Prisons and Charities.

Dr. W. H. B. Aikins returned to Toronto after visiting Cincinnati and St. Louis, October 19th. He attended a meeting of the Mississippi Valley Medical Association at Cincinnati, and joined in a reunion of a number of medical friends from different portions of the United States who visited Italy together in 1883, after having spent a winter session at the General Hospital in Vienna.

Obituary.

ALBERT E. MALLORY, M.D.

Dr. Mallory, Registrar of East Northumberland, died at his home in Colborne, after an illness of three or four days from appendicitis. He graduated from McGill University in 1872. After a time he practised in Warkworth. He was a prominent Liberal in politics, and represented East Northumberland in the Dominion Parliament for a short time. He was appointed Registrar in 1889.

Book Reviews.

A Text-Book of Human Histology. Including Microscopic Technic. By Drs. A. A. Böhm and M. von Davidoff, of Munich, and G. Carl Huber, M.D., Professor of Histology and Embryology in the University of Michigan, Ann Arbor. Second Edition, Thoroughly Revised and Enlarged. Handsome 8vo volume of 525 pages, with 376 original illustrations. Philadelphia, New York, London; W. B. Saunders & Company, 1904. Flexible cloth, $3.50 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

This work of Drs. Böhm and Davidoff is well known in the German edition, and is considered one of the most practically useful books on the subject ever written. Dr. Huber in editing the American edition has added much useful matter, the practical results of his own extensive experience in histologic endeavor. This new second edition has been in large part reset, all the newest methods of technic being incorporated. For convenience in the laboratory it has been bound in flexible cloth.

Pathological Technique. A Practical Manual for Workers in Pathological Histology and Bacteriology, including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By F. B. Mallory, M.D., Associate Professor of Pathology, and J. H. Wright, M.D., Instructor in Pathology, Harvard University Medical School. Third Edition, Revised and Enlarged. Octavo, 469 pages, with 140 illustrations. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $3.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

The third edition of this successful work keeps pace with the great advances made in pathology, and its value as a laboratory and post-mortem guide remains undisputed.

In subjecting this book to thorough revision the authors have kept in view the needs of the laboratory worker, whether student, practitioner or pathologist, for a practical manual of modern methods in the study of pathological material. Many parts have been rewritten, many new methods have been added, and the number of illustrations has been increased.

The Principles of Hygiene. A practical Manual for Students, Physicians and Health Officers. By D. H. Bergey, A.M., M.D., Assistant Professor of Bacteriology, University of Pennsylvania. Second Edition, Thoroughly Revised. Handsome octavo volume of 536 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $3.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

Dr. Bergey's book has undergone a critical revision for this new second edition, and in its present form it now represents the practical advances made in the science of hygiene up to date.

This book is intended to meet the needs of students of medicine in the acquirement of a knowledge of those principles upon which modern hygienic practices are based, and to aid physicians and health officers in familiarizing themselves with the advances made in hygiene and sanitation in recent years. The book is based on the most recent discoveries, and represents the practical advances made in the science of hygiene up to date. The rapid strides made in our knowledge of the entire subject has rendered such a book, reflecting the more recent discoveries, a necessity to physicians and students of medicine.

A Hand-Book of Surgery. For Students and Practitioners. By FREDERIC R. GRIFFITH, M.D., Surgeon to the Bellevue Dispensary, New York City; Assistant Surgeon at the New York Polyclinic School and Hospital. 12mo volume of 579 pages, containing 417 illustrations. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Flexible leather, $2.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

Dr. Griffith has given us a little work of great merit. It is a brief outline of the principles and practice of surgery, written as concisely as is possible with clearness. We are sure it will be valuable alike to the student and the practitioner, because the entire subject of surgery is covered, including all the specialties, as diseases of the eye, ear, nose and throat; genito-urinary diseases: diseases of women, etc. There are also articles on life insurance, rape, sexual perversions, microscopy, and on many other subjects of great importance to the practising surgeon. There are 417 illustrations, selected for their clearness, accuracy, and general usefulness. We predict that Dr. Griffith's work will be to surgery what Dr. Stevens' manual is to medicine.

A Text-Book of Materia Medica: Including Laboratory Exercises in the Histologic and Chemic Examinations of Drugs. For Pharmaceutic and Medical Schools, and for Home Study. By ROBERT A. HATCHER, PH.G., M.D., Instructor in Pharmacology in Cornell University Medical School of New York City; and TORALD SOLLMANN, M.D., Assistant Professor in Pharmacology and Materia Medica in the Medical Department of the Western Reserve University of Cleveland. 12mo volume of about 400 pages, illustrated, Philadelphia, New York, London: W. B. Saunders & Co., 1904. Flexible leather, $2.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

Students of medicine, as well as pharmacy students, will undoubtedly welcome this work. The authors are teachers of much experience, and in this forelying book present a work on the subject of Materia Medica in an entirely new way, teaching by actual experimental demonstration. Part I comprises a guide to the study of crude drugs, both official and unofficial; while in Parts II and III the histologic and chemic examina-

tions of drugs are considered in a scientific, yet clear and simple manner. All the histologic descriptions are supplemented by laboratory exercises of important drugs, so that the student becomes insensibly acquainted with their construction. Throughout the entire work general stress is laid on the recognition of adulterations. We can strongly recommend this work as reliable, practical, and excellent in every way.

Essentials of Anatomy, including the Anatomy of the Viscera Arranged in the form of questions and answers, prepared especially for students of medicine. By CHAS. B. NANCREDE, M.D., Professor of Surgery and Clinical Surgery, in the University of Michigan, etc. Seventh edition, thoroughly revised. Philadelphia, New York, London: W. B. Saunders & Company. 1904.

In this seventh edition the entire book has been re-read and errors diligently sought for. New ideas have been incorporated when they have been shown accurate. The chapter on the Nervous System has practically been rewritten. As this book has been founded upon Gray its use does not conflict with that standard anatomy. This is one of the best small works on the market. J. T. D.

A Doctor's Red Lamp.—A book of short stories concerning a Doctor's Daily Life, selected by CHARLES WELLS MOULTON. 1904. The Saalfield Publishing Company, Chicago, Akron and New York.

This book contains a series of admirable short stories concerning a doctor's daily life. The stories are offered without any critical comment, and many of them are old favorites from well-known and standard authors. Among them are: "Doctors of Hoyland," by Conan Doyle; "A Doctor of the Old School," by Ian Maclaren: "A Doctor's Front Yard," by Sessions, and "On the Indian Frontier," by Henry Seton Merriman. The stories are all excellent.

Essentials of Materia Medica and Prescription Writing. By HENRY MORRIS, M.D., College of Physicians, Philadelphia. Sixth Edition, Thoroughly Revised. By W. A. BASTEDO, PH.G., M.D., Tutor of Materia Medica and Pharmacology at the Columbia University (College of Physicians and Surgeons), New York City. 12mo volume of 295 pages. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $1.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

Dr. Bastedo in making the revision of Dr. Morris' "Essentials of Materia Medica," has furnished the student with a work complete and up to date in every particular. Much of the text has been in great part rewritten. There have been introduced articles on adrenalin, stypticin, and on the iodine and silver synthetics. The present sixth edition is all that could be desired.

Essentials of Bacteriology. By M. V. Ball, M.D., formerly Resident Physician at the German Hospital, Philadelphia. Fifth Edition, Thoroughly Revised. By Karl M. Vogel, M.D., Assistant Pathologist at the College of Physicians and Surgeons (Columbia University), New York City. 12mo volume of 343 pages, with 96 illustrations, some in colors, and six plates. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $1.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

Within the last few years rapid progress in bacteriology has involved many radical changes in the science, necessitating a thorough revision in the preparation of this edition. It is with pleasure we note the inclusion of all the recent advances in the subjects of immunity—tuberculosis, yellow fever, dysentery, bubonic plague, and other infectious diseases—making the work reflect as faithfully as possible the present status of bacteriology. We can confidently say that this book in the present fifth edition will be found of inestimable service to the student.

Selections.

SURGICAL HINTS.

Powdered boracic acid makes a useful dressing for burns and ulcers. When the wound surface is large, however, it should not be employed, for poisoning may follow from the absorption of considerable amounts of boracic acid.

Collodion, so useful for sealing over a puncture wound after aspiration, will not adhere to the skin if the puncture hole is bleeding. To obviate the difficulty pinch up tightly the skin about the tiny wound, dab on the collodion, and continue the compression for a minute or two thereafter.

Distressing tympanites is often quickly relieved by the administration of a warm enema of peppermint water. A sensitive rectum may usually be made to retain a nutritive or stimulating enema by the addition to it of ten to twenty drops of tinct. opii, or by the preliminary introduction of an opium suppository.

The occurrence of intermittent swelling in the submaxillary region, with or without pain, redness, tenderness and fever, due to suppuration, is very suggestive of the presence of a salivary calculus usually in the submaxillary duct or gland. If pus can be milked from the duct the diagnosis is more certain. The stone can usually be palpated, or located by passing into the duct the wire stilette of an aspirating needle. Submaxillary mumps occurs sufficiently often to be also borne in mind in dealing with swellings in that location.—*International Journal of Surgery.*

The Treatment of Pancreatic Cysts.

Villar (*Archiv. Provinc. de Chir.*), in concluding an article on glandular cysts of the pancreas, based on a case under his own care, discusses the surgical treatment of these growths. Total expiration, it is held, is the logical and ideal method, and is the only kind of intervention that is really useful when the cyst is neoplasic and of the nature of a malignant growth. Unfortunately, this operation is a serious one, and the surgeon will often be compelled to have recourse to marsupialization, which, as has been proved by statistics, affords excellent results. The following are the different stages in the operative treatment of a case in which pancreatic cyst has been diagnosed; (1) Laparotomy; (2) exposure of the cyst by successive division of the membranes over its anterior surface; (3) puncture of the cyst and evacuation of its fluid contents; (4) closure of the

orifice in the cyst wall by pressure forceps; (5) exploration of the abdomen with regard to adhesions and the relations of the tumor with neighboring organs. The surgeon has now to decide between two alternatives. If the adhesions can be readily divided and are not very vascular, he should remove the whole of the cyst; if, on the other hand, the adhesions be very dense and very vascular, he should marsupialize the cyst, and, if anterior drainage seem to be insufficient, make also an opening for posterior drainage in the lumbar region.—*British Med. Jour.*

Black Eye.

Merck's Archives advises the use of the following lotion:

℞ Acidi acetici dil. ..... ℥ v.
Tr. arnicæ
Ammon. chloridi, aa. ..... ℥ i.
Aquæ destil. ..... ℥ v.
M.
Ft. lotio. —*The Clinical Review.*

For Arteriosclerosis.

The following is attributed to Huchard:

℞ Sodii iodidi ..... ℥ i.
Sparteinæ..... gr. xv.
Pulv. glycyrrhizæ..... q. s.
M.
Ft. caps. No. xl.
Sig.—Four to six capsules daily.

There is ample evidence that iodide of soda is valuable in arterial degenerations, and in the chronic myocarditis and ataxic states of the heart that are so common in elderly people with or without evident arterial degeneration. Combined with sparteine and strychnia, where there is inability of the heart muscle which has not yet reached the stage of producing dilatation of the heart, very satisfactory results may be obtained The following combination is one which has given marked satisfaction:

℞ Strych. Sulph..... gr. ¾.
Sodii iodidi ..... gr. 24.
Sparteinæ sulph .....gr. 12 to 18.
Pancreatin..... gr. 40.
M.
Ft. caps. No. 24.
Sig.—One t. i. d. —*The Clinical Review.*

The Canadian Practitioner and Review.

VOL. XXIX. TORONTO, DECEMBER, 1904. NO. 12.

Original Communications.

A PLEA FOR THE VOLUNTARY ADMISSION OF CERTAIN TYPES OF INSANITY TO INSTITUTIONS FOR THE INSANE.*

BY JAMES RUSSELL, M.D.,
Asylum for Insane, Hamilton.

I offer no apology for the plea that I am about to make before this association for the voluntary admission of certain types of insanity to institutions for the insane. Neither do I make any claim to originality in presenting the claims of a numerous class of mental sufferers before such a jury of experts in mental science The verdict will, of course, be in proportion to the justice of the cause and the ability of the advocate in presenting the claim. Should I fail, it will not be the first time a good cause has suffered on account of a badly prepared case and an imperfect presentation of the facts.

I have been induced to prepare this paper largely because of an experience I have had during the past year with a prominent gentleman who voluntarily entered the institution over which I have the honor to preside. It was a great source of comfort to this gentleman, and his friends as well, that he was spared the humiliation of being examined and certified as a lunatic before gaining admission to the institution. It was a further source of satisfaction that he was admitted for treatment to an isolated hospital proper, and was not compelled to mingle with the ordinary rank and file of patients which constitute the population of a large Provincial or State institution for the insane. I was so profoundly impressed with this experiment

*Read before the American Medico-Psychological Association at St. Louis, May 28th, 1904.

that it occurred to me we had at last found a clue by which we might popularize our institutions with the public, and gradually root out that prejudice which has so long dominated the public mind.

It cannot be denied that a tremendous advance has been made in the care and treatment of the insane, but it is just possible we may be too easily satisfied with past achievement and decide that the field of progress has been sufficiently exploited and that there is nothing more to be done. I need not say that such a decision is not in keeping with the spirit of the age. In whatever direction we turn, the great moral and scientific forces are bristling with effort for the uplifting of humanity and the amelioration of the condition of those on whom the heavy hand of affliction has fallen. Speaking from the ethical side of life, the one outstanding thing that distinguishes the present from the past is the sacredness of human life and the many agencies at work for its perpetuation and the advancement of human happiness.

As psychologists, and therefore co-workers in the field of mental and moral science, we may fairly claim to occupy a prominent part in ameliorating the sorrows and easing the burdens of suffering humanity. Whether or not we are keeping pace with the sister sciences, which are propelling forward at such a rapid pace the great civilizing forces that are yet to emancipate humanity from the ignorance and superstition of the past, is an open question. It occurs to me we have not done all we should have done to win popular confidence in our methods for the prevention of insanity, and especially in the treatment of incipient cases.

Incipient Insanity.

The plea which I set up as the subject of this paper is on behalf of incipient insanity, which includes a large class of neurotics under the head of neurasthenia. Many of these cases are on the dangerous borderland of insanity, and if not properly cared for they drift across the Rubicon of hope and go to swell the maddening throng of acute and chronic cases in one of the State institutions.

It may be interesting to glance for a moment at the disintegrating social forces at work producing this peculiar type of mental alienation, and how it may be averted. The restless spirit of the age, with its intense competition in every department of business and professional life, the mad struggle for wealth, place and power, with an ever-increasing mental tension, are responsible for a large increase of nervous disorders which are sapping the energies of the present generation. That this weakening force will project itself into future generations with

increasing effect is all too evident. Among women with a more delicate nervous organization this effect is even more apparent. The struggle to keep up appearance and win social recognition, along with artificial and extravagant modes of living, are responsible for many neurotic conditions bordering on insanity.

It is said on the highest authority of Americans themselves, that the original type of American is now extinct through a process of race suicide, the outcome of modern methods of living. It is said that a new race is being evolved, a more highly organized nervous type, bristling with energy and worshipping at the shrine of "Mammon." What the outcome of this enormous expenditure of nervous energy will be on the generations yet unborn is for the scientist and philosopher to determine. As alienists, charged with the mental health of the nation, have we no counsel to administer, no arm outstretched to save, no balm in Gilead to heal? Unfortunately, advice and warning are largely thrown away under these conditions. It is only sad and bitter exprience, which often comes too late, that is of any avail.

Popular Prejudice.

Disguise it as we may, there is still a foolish prejudice in the public mind against institutions for the insane. Insanity in the family is looked upon as a badge of mental and social inferiority, and all sorts of devices are resorted to in order to prevent its detection.

The disease is supposed to be largely incurable, and its hereditary transmission in families tends to exclude them from desired matrimonial alliances as well as many positions of trust.

It is certainly not the business of the profession to minimize the danger of hereditary transmission, but rather to educate the public to a knowledge of those physiological laws of cross-breeding with sound stock which make for the dilution and final extinction of the insane diathesis. It is our duty to teach the public that insanity is curable like other diseases, and is successful in proportion as it is treated in the incipient stage. Like every other disease it has its origin in the violation of natural law, and may be either transmitted or acquired, or both together. It is only by popular education, side by side with tangible evidence of the good work achieved, that we can convince the public that our institutions are something more than a great Valhalla for the reception of the mentally dead.

In this country an effort has been made to break down this prejudice by abolishing the name "asylum" and substituting for it the name "hospital." The motive is a worthy one; but experience proves that to merely juggle with a name will not conquer a rooted prejudice, the growth of centuries. It is by

deeds and not words our popularity must come. "By their fruits ye shall know them."

The ordinary citizen who visits one of our large State or Provincial institutions, with its hundreds of able-bodied men and women in the various stages of mental vacuity, is certainly not forcibly struck with the "hospital" idea. From the similarity of the patients, their dress, manner and general demeanor, the visitor is at once impressed with the pauper idea of custodial care and hopelessness of recovery. He is apt to regard them as simply the driftwood of society that have been wrecked on the ocean of life, that have failed to adjust themselves to social conditions, and become a burden, first, upon their friends, and secondly, upon the State. In general terms that is the way our institutions are viewed by the general public.

To the hospital physician the query presents itself, Why are these people not cured? The question is rather a puzzling one from the "hospital" standpoint. Then why call it a "hospital" if it is not discharging the function of a hospital? We may as well admit that the "hospital" function applies only to a small minority of the inmates, but is capable of much greater elaboration if conducted along scientific lines in the treatment of incipient and acute cases.

Speaking from the etiological standpoint there is really no parallel between abnormal mental phenomena and physical disease in a large proportion of cases. In the one there is a constant tendency to chronicity and recurrence, the result of hereditary transmission, while there may be no pathological cause whatever.

It is true we have the toxic or infective type, as in syphilis and alcohol, with a pathological, cellular degeneration, but these form a small minority of the whole. There may be anatomical or histological defects, but that is congenital and not amenable to treatment; and this is the reason why our institutions are crowded to the doors with chronic cases which require simply custodial care. Again a large proportion of cases have reached the chronic stage before admission, with all hope of recovery gone. It becomes us then to educate the public to the necessity of early treatment. How is this to be done? We can, at least, simplify the method of admission in all incipient and acute cases.

Voluntary Admission.

Comparing the asylum with the hospital, a wide gulf separates them in the mode of admitting patients. In the one case the applicant has to undergo a medical examination by two physicians, and is lucky if he has not to appear before a bench

of magistrates and judges also before he fulfils all the requirements of law. In order to further humiliate him he may be forced to spend a few weeks in gaol in the company of criminals, not because he has committed any crime, but for safe keeping until the formalities of the law have been complied with. Again, the moment the poor victim enters the portals of an asylum he is divested of all civil and political rights, and becomes a dead man in the eyes of the law and a ward of the State. Is it any wonder, in view of the rigorous method of admission, that the people postpone the ordeal as long as possible, and only consent under the direst necessity?

There are many incipient cases not altogether *non compos mentis* who dread the idea of being examined and certified as lunatics. Many of this class would gladly avail themselves of institution treatment if they were spared the ordeal of certification and allowed to voluntarily enter a separate building or cottage for treatment.

We know that too often commitment to an asylum carries with it a badge of social degradation which haunts the poor victim through life, and too often the public are ready to endorse his morbid introspection and loss of social caste. He is looked upon as a dead branch of the family tree, and it may be evidence of further decay in other branches of the same tree.

In Great Britain this question is occupying a large amount of attention, and an agitation is on foot for further legislation looking to the relief of this class, by granting licenses to private houses, nursing homes, and private asylums, for the treatment of certain types of insanity, by voluntary admission. This is practically a boarding-out system for the well-to-do classes, in charge of physicians and nurses trained to the work. It is evidence of a desire to avoid going to a public institution, with all that it implies. It is further evidence of a desire to receive special treatment as against congregate treatment in the public wards of an institution.

Few of our large state institutions are sufficiently equipped with scientific apparatus for conducting the best therapeutic methods in the treatment of even the acute and curable cases. Newly admitted cases are thrust in among the common herd, and too often lose their mental identity amid the general throng. One has only to pass through the crowded wards and witness the mental and physical inertia to be convinced of the utter barrenness of the mental therapy employed for the implanting even the smallest germ of mental reconstruction. Surely it is a mockery of words to call this hospital treatment.

What is the remedy for this condition of things? How are we to cope with this surging mass of insanity? What methods should we adopt to increase the recovery rate, and at the same

time lessen the ranks of the chronic cases which vegetate from year to year on the downward grade to hopeless dementia? Our hope lies in applying the best therapeutic treatment to newly-admitted cases. I do not presume to speak with the wisdom of a Solon upon a subject which many of you are more capable of discussing than myself, but in my mind there should be a large receiving hospital specially equipped with every psychopathic contrivance for the treatment of new cases. This equipment should include hydro and electro therapy, massage, physical drill, rest treatment, forced feeding, mental recreation, etc. It should also contain a laboratory for making the various blood tests, urinalysis, and also tests of the stomach and other digestive secretions. But not less important than all, it should have a well trained staff of physicians and nurses. The keynote to treatment should be a differentiated specialism suited to each case. In that way we shall have hospital treatment in fact, as well as in name.

Large discriminatory power should be given to superintendents permitting patients to enter voluntarily. A large class of neurotics go about from one sanitarium to another seeking relief which they cannot find. The ordinary physician prescribes travel, change of air and scene for these cases, but unless a proper selection of cases is made, they often return more jaded and worn than when they started. The rest treatment is more often indicated, and with proper medication and under hygienic conditions, is attended with better results than in travelling to and fro over the earth amid the bustle and excitement of modern life.

In Scotland, Dr. Clouston, of Morningside, is at the head of an agitation for the treatment of incipient and transient cases in an insane ward of a general hospital. Sir William Gowers is advocating another movement for individual care in private homes. The background of both movements is an effort to escape certification, and the stigma which attaches to incarceration in a public asylum. It will be interesting to watch the growth of this agitation in the Old Land, for I am sure it will find little support on this side of the Atlantic. To begin with, it is an attempt to protect the individual against a foolish, morbid prejudice, and at the same time place a further ban on the public institution whose function is to treat every form of mental alienation.

The treatment of any form of mental disorder in a general hospital is doomed to failure unless in charge of a mental expert and a staff of nurses trained to the work. We all know how panic-stricken and helpless the general hospital physician and his nurses are in the presence of a case of insanity, and how loudly they clamor for the removal of the case to the asylum.

It will be the same in private home care, except, perhaps, in very mild and harmless cases. To my mind the whole situation sums itself up as follows: Insanity can only be treated successfully in institutions appointed for the purpose, and officered by physicians and nurses specially trained for the work. All other methods are mere makeshifts, and will end in disappointment, and perhaps disaster.

In conclusion, we should make a strong effort to popularize our institutions by convincing the public that we can do much for them: that mental disease may be cured like physical disease, and the one may be concurrent with the other: that successful treatment will be largely in proportion to the early opportunity of dealing with it.

Many of the mental disorders are functional rather than organic, but with delay in treatment there is always a danger of the formation of a morbid brain habit, which tends to chronicity. Early removal from home environment is a *sine qua non* to successful treatment, where morbid habits of thought can be counteracted under the discipline of institutional life. There is little doubt that delay in early treatment is the chief reason why all our institutions for the insane are loaded up with such a mass of chronic cases that have passed beyond the region of hope.

Ample provision should be made for all ranks and conditions, with sufficient isolation and other comforts to meet the social requirements of each. The pathway to the institution should be made inviting, and all red tape formalities and other consumers of valuable time should be abolished. The doors should stand wide open for the admission of all incipient and acute cases, and no case should be allowed to reach the chronic stage until science and skill shall have exhausted their best resources.

THE USE OF INTOXICATING LIQUORS AND LIFE INSURANCE.*

By T. MILLMAN, M.D.,
Supreme Physician, Independent Order of Foresters, Toronto, Canada.

There have been many articles written concerning applicants for life insurance who have used or are using intoxicating liquors as a beverage. The subject is an important one, and this is my reason for taking up a short period of your time in touching upon it. I am afraid I have nothing new to offer, but as Examiners-in-Chief it is well to have this all-important question constantly before us.

We all know what care we take in sifting the family history where there is a suspicion of a tubercular tendency, what stress we put on weight, small chests, and how we guard against any applicant who has had a recent attack of pleurisy or pneumonia, or who gives a history of chronic cough, or spitting of blood.

We should be no less careful in analysing the habits of any applicant who states he drinks wine, spirits or malt liquors. It is claimed by many good authorities that the proportion of deaths as the result of alcohol, directly or indirectly, is as large as that resulting from tuberculosis. It is true that we receive very few death claims in which it is certified that the death was the result of alcohol, but we know too well that many of the diseases which are put down as the cause of death, were due in a large measure to the use of intoxicating liquors, such as Bright's disease, cirrhosis of the liver, pneumonia, heart disease, arterio-sclerosis, cancer of stomach, apoplexy, other nervous diseases as insanity, accidents, suicides, etc. A large percentage of the deaths from the above diseases are due more or less to the use of alcohol.

The question naturally arises, "How shall we deal with the applicants who admit using intoxicating liquors?" How much can a man drink and still be a safe insurance risk? Where is the line of demarcation? Is there any hard and fast rule for our guidance? These questions are not easily answered, in fact, cannot be answered so as to apply to all cases. Alcohol does not affect all men alike; some have a great tolerance for it, whereas others cannot take the smallest amount without having ill results. Sir Dyce Duckworth states that in some cases no matter how small a quantity is taken the alcohol proves a poison, the tissues being so sensitive to its influence. Evidently, each case has to stand on its own merits. Anstie puts down the physiological limit as one and a half ounces daily of pure

* Read at Annual Meeting of the National Fraternal Congress, held at St. Louis, Mo., September, 1904.

alcohol, in some form or other. In my judgment, this is too liberal an allowance, especially for those who are following sedentary occupations, such as being confined all day in stores, offices, etc.

A great deal depends again on how the above amount is taken. It certainly is much less harmful if taken with the meals, or immediately after; in this way, the alcohol is well mixed with the food and only comes in contact with the delicate membranes of the stomach in a very diluted form. It is well known that alcohol has a great affinity for water, and when it comes in contact with the cells of the body it absorbs the water in them and leaves the cells more or less contracted. One can therefore easily imagine the condition of the lining membrane of the stomach if a glass of pure or somewhat diluted spirits is taken while the stomach is empty. It is in a shriveled or puckered condition and not in any way prepared to receive and digest a meal. No man should therefore be considered a desirable insurance risk who takes his glass before meals, more particularly before breakfast. I also have my misgivings about the man who takes his glass at bedtime. Apart from meals, it is a destroyer of arteries and a productor of sclerosis of the connective tissues throughout the body. Even when taken with the meals and absorbed in the system with the food, alcohol still plays an important part. A certain amount can, according to many authorities, be safely taken and assimilated; with a continued slight excess beyond that amount as set forth by Sir Dyce Duckworth, damage is done, as the early aging of the person, premature decay of the vital powers, a tendency to obesity, vascular changes as small dilatation in the superficial vessels, progressive arterio-sclerosis long before the natural period in which senile decay may be expected. The hair whitens prematurely and the kidneys and liver are not infrequently involved in this sclerosis process. The above changes are occurring in many cases where parties honestly believe they are using alcohol in a very moderate and safe quantity. They appear to be ignorant of the unwholesome excess of alcoholic liquids they are consuming. If you were to sit down with one of these men and ask him, how much he takes daily, he would readily reply, "I take very little." Ask him to state the quantity he takes with each meal, the quantity he takes as a social glass with friends between meals, also the size of his "nip" at bed-time and possibly before breakfast, total the amount and I am satisfied he will be astonished at the quantity. Yet, these people are frequently successful business men, are looked up to and respected; and with the majority of medical examiners, insurance agents and organizers, are considered first-class insurance risks.

There is no doubt, that Medical Examiners-in-Chief are agreed on certain classes of men who use intoxicating liquors and who are not safe insurance risks and should always be rejected.

First,—The chronic, steady drinker to excess.

Second,—The man who gets intoxicated for two or three days, or longer, at a time and is quite abstemious in the intervals. The first named class, is constantly under the influence of alcohol. The tissues are saturated with same and are becoming more or less damaged. The second class is not so bad as the first, as to injuring the tissues of the body. Between the attacks of intoxication the tissues have an opportunity to recover themselves: but surely such men are not good risks while intoxicated, being subject to accidents, melancholia ending in suicide, attacks of apoplexy, etc., then why should we accept them knowing they will get intoxicated. Then, every time they become intoxicated there must be more or less damage to the tissues and this becomes more marked as time goes on.

We now come to the third class, and concerning it there may be a difference of opinion. Those who get intoxicated for a few hours, say three or four times a year, I am of the opinion should be rejected. Are they not exposed, like the former class, to accidents, etc., although to a less degree? Then again, is the habit not likely to grow more decided and many of them become as objectionable as those in the second class? Then, in societies like ours, should not the fraternal side be considered? Surely, such men are not a credit to any society, and discourage our best men from making application for membership.

We now come to the moderate drinker, who is considered a safe risk and who is looked upon as a temperate man. Are we all agreed on this class? To what extent can he indulge? A glass of wine, beer, or a pony of whisky with each meal may be all right, but beyond this I am inclined to reject. A glass between meals, as already stated, I object to. Whenever I know a man takes a glass before breakfast, I reject without hesitation. We reject hotel-keepers, bar-tenders, brewers, etc., just on account of their frequent indulgences and their surroundings. They may not get intoxicated, but the system is seldom free from the seductive beverage

Now, we come to the total abstainers. What about them? We might divide them into two classes. First, those who have indulged too freely in the past, reformed and have become total abstainers. I have very little use for these as insurance risks. The so called cures are a myth in a large percentage of cases. Some claim it is safe to accept them after five years of total abstinence. I prefer ten, and then only in certain cases.

Second, those who have been total abstainers all their lives are, in the estimation of the majority, ideal risks, although there are good authorities, as Sir Dyce Duckworth, who state that men who take their glass quite moderately are better risks than the total abstainers. Sir Dyce adheres to this in spite of statistics to the contrary. One writer maintains, "If total abstainers live longer than those who drink moderately, that it is not due to the non-use of alcohol, but that it is due to their constitution and nervous make-up. While they are less tempted to indulge in alcoholic liquors, they are less exposed to other factors that lead to early death." He continues: "It is well known that the improvident neurotics and defectives generally are more addicted to the use of alcohol than are the strong and robust and the self-centred," and he concludes, "that the statistics so far as they go, show that the use of alcohol is a valuable index of these other conditions, and not that its use in moderation tends directly to shorten life, at least not to the extent shown by figures." He admits that total abstainers live longer than the non-abstainers owing to the poorer make-up of the latter and that their earlier death is not due to the alcohol they consume. Then, the use or non-use of alcohol becomes a valuable symptom in determining who are safe risks for life insurance.

Until lately, there have been no reliable statistics showing whether total abstainers or moderate non-abstainers live longer. A very valuable report was issued in the early part of the present year by Thomas W. Whittaker, M.P., Chairman and Managing Director of the United Kingdom Temperance and General Provident Institution, giving the experience of that Company. On the first page of said report, we find that in 1839 a declaration signed by the leading physicians of that time stated, that "the most perfect health is compatible with total abstinence from all intoxicating beverages." In 1847 another declaration as follows: "Total and universal abstinence from alcoholic liquors and beverages of all sorts would greatly contribute to the health of the human race." The above Institution now produces statistics showing that those declarations were well founded; that total abstainers live considerably longer than the moderate non-abstainers. In preparing said statistics, they took those policies payable only on the death of the assured and were issued at ordinary rates on the lives of men who were in sound health at the time of assurance. These cover a period between the years 1841 and 1901 inclusive, namely, sixty-one years. Of these, there were in the General, or Non-abstaining Section, 31,776. They passed through 466,943 years of life, and amongst them there were 8,947 deaths. In the Temperance or Abstaining Section there

were 29,094 policies, passing through 398,010 years of life, with 5,124 deaths. Had the mortality in the latter Section been at the same rate as in the former Section, the deaths would have been 6,959, or 1,835 more than they really were; that is to say, the mortality in the General Section was, on the average, 36 per cent. higher than in the Temperance Section. The above figures refer only to those who were continuously in the Section they first entered, and does not include those who were afterwards transferred from one Section to the other. The transfers during the sixty years, however, were only about 5 per cent.

Another table is presented: "Roughly speaking, the effect of medical selection largely disappears in five years. Consequently, by omitting the first five years of assurance from our observations, we practically exclude any advantage which might accrue to one of the Sections, if there were in it a large number of recent assurances—that is, more recently selected lives—than in the other." The report adds: "It will be observed that during the strenuous working years of manhood, from twenty-five to sixty years of age, the annual mortality rates among the Abstainers were, on the average, 40 per cent. lower than among the Non-Abstainers. This is an enormous difference."

The question may be asked: "Are the non-abstainers assured in that Institution good average assurable lives? Are they as sober, as healthy, and as long-lived as the average of those lives which are assured in the other life offices whose mortality experience furnishes the data upon which the Life Assurance business of the country is conducted?" In this General Section, the mortality is about $5\frac{1}{2}$ per cent. less than was to be expected by the Hm. Tables, or less than half per cent. more than the expectation according to the Om. Tables. It is thus seen that the General Section consists of good average assured lives. The mortality of the Temperance Section during the sixty-one years was 30 per cent. lower than that shown by the Hm. Tables, and 25 per cent. lower than that shown by the Om. Tables.

The social and financial standing of the risks in the two sections were practically the same.

There are many other points of value and interest in the report, but I must not make this paper longer by more quotations. The above report should certainly be in the hands of each of us; it was published in the *Contemporary Review* for March, 1904. I agree with the conclusions of the report that total abstinence tends to prolong life. Other Institutions have had the same experience; for instance, the Scottish Temperance Life Assurance Company, Sceptre Life Association of England,

the Mutual Life Insurance Company of New York, and the Manufacturers Life Insurance Company, Toronto, Canada.

My deductions are as follows:

1. That total abstainers, all other things being equal, are decidedly the best risks for life insurance.

2. That we are justified in accepting applicants who confine themselves to a glass of beer, or wine, or a small glass (pony) of whisky with each meal.

3. That those applicants who take the above with each meal and in addition, one or two glasses between meals, should pay extra rates, if accepted. My impression is that they should not be accepted. There is always the danger that the habit will become more decided as time goes on. As before stated, alcohol has a strong affinity for water and when taken on an empty stomach, causes thirst, and there is a desire for more, and unless the man has a strong will, he is inclined to gratify this thirst.

4. Those who get intoxicated for a few hours three or four times a year, should in my opinion also be rejected, as the habit is apt to increase, but if accepted they should pay extra rates.

5. If more is consumed than in deduction "3," or if intoxication is more frequent and of longer duration than in deduction "4," I believe you will all agree with me, that they should be rejected.

6. We should, as far as possible, educate the officers and members of our Lodges to be very careful in soliciting applicants who use intoxicating liquors; and strongly impress on the minds of our local medical examiners the importance of carefully analyzing the habit of each applicant in respect to the use of intoxicating liquors. They should not simply take the statement of the applicant, but with tact find out just how much wine, beer and spirits he takes daily and at what hours of the day.

7. As alcohol when taken to excess damages the cells and tissues of the body, we should exercise care in acting on examination papers of applicants who state that one, or other, or both of their parents were addicted to alcoholic excesses. The reproductive germs are damaged, and the health of the off-spring bodily and mentally must be impaired. As a rule, they are not long lived, and many of our criminals, idiots, etc., come from this class.

In preparing the above paper I have been much indebted to the authors of papers published during the last few years in the *Medical Examiner and Practitioner* of New York, and also as before stated, to the report of the "United Kingdom Temperance and General Provident Institution," of England.

THE OPERATIVE TREATMENT OF SPINA BIFIDA.*

By E. R. SECORD, M.D., Brantford.

The comparatively frequent occurrence of spina bifida (it is found, roughly speaking, somewhat more frequently than once in every thousand births), its hopeless prognosis unless suitably treated, and the often-times favorable results to be attained by such suitable treatment, have led the writer to bring forward the following facts for consideration and, I trust, discussion.

Leaving aside for the present any reference to the exact frequency of occurrence, to the etiology, to the anatomical conditions, to the symptoms and to the prognosis, my remarks will be confined almost entirely to the question, "Given a case of spina bifida, what treatment will in the majority of cases bring about the best result?"

In 1885 a special committee of the London Clinical Society appointed to consider the various methods in vogue for the treatment of spina bifida, reported (1) in favor of the method by injection of Morton's fluid. Their report was based on seventy-one collected cases treated by this method, of which thirty-five recovered, twenty-seven died, four were relieved and five unrelieved.

Writing in 1902, Mr. W. H. A. Jacobson, of Guy's Hospital (2) says in this connection: "Excision of the sac is the method which I recommend, and which in spite of certain grave dangers promotes, I think, the best results in carefully selected cases." Excision of the sac is defined by Van Buren Knott (3) as meaning "the removal of the excessive skin and meningeal membranes, the separation of the nerves, if present, from the sac wall and their restoration to the spinal canal."

I have quoted Mr. Jacobson's opinion as being that of a fairly conservative and well-recognized surgical authority, and it is very interesting and instructive reading to follow the literature of this subject during the seventeen years intervening between the dates above mentioned, and to see the pendulum of surgical opinion slowly but steadily swing round until Mr. Jacobson's words practically voice the ideas of modern day surgeons.

As illustrative of the higher class of surgical opinion at the beginning of this period, I may quote two well-known men:

1. Sir Frederick Treves (4) in 1884 wrote regarding excision: "If the sac contains cord elements the result will prove fatal; if not, success may possibly follow."

2. In 1887 Robert W. Lovett (5) wrote: "In considering operative procedures for the removal of the tumors one fact is

*Read at meeting of Canadian Medical Association.

self-evident, that such operations are only applicable in cases where it is definitely determined that the cord is not present in the sac, and that of course restricts the field very much."

He further says: "If Morton's injection fails, and it seems reasonably sure that the cord is not present in the sac, a simple excision of the tumor should be done. If there is reason to suspect the presence of the cord in the sac, excision is of course out of the question, and the case must be left to itself."

Viewing the matter in the light of subsequent experience and teaching, it is difficult to comprehend how such a position should have been considered tenable. On the one hand, in the case of the simple cases where the cord is not present, he speaks of a simple excision of the tumor, and on the other, in the complicated cases he speaks in the following by no means sanguine terms of the treatment by injection: "It is generally accepted that the presence of the cord in the sac, when it can be definitely established, though not a positive contra-indication to treatment by injection, renders its utility somewhat questionable, and adds to its danger." Why then use the injection method at all?

Treves' opinion on this point was, "That he was aware of no case of cure from iodine injection, where it was definitely proved that a free communication existed between the interior of the sac and the spinal canal, that could not be even temporarily cut off, and where at the same time the cyst contained the cord or some considerable portion of it."

Once more it may be asked, where then were the arguments in favor of Morton's method? The London Clinical Society figures in themselves showed a better mortality rate from operative measures (twenty-three cases, sixteen recoveries, seven deaths) than from injection (seventy-one cases, thirty-five recoveries, twenty-seven deaths), but this is got over by Lovett by remarking that "the cases were probably very carefully selected." Judging from his remarks quoted above regarding the dangers of the injection treatment in the complicated cases, it is very probable that the cases for treatment by Morton's fluid were just as carefully selected. Under any circumstances it is fair to conclude that the cases most suited to treatment by Morton's injection are the simple meningoceles, the very cases in which Behrend (6) speaks of excision as the simplest of operations. Lovett argued that successful cases of treatment by injection were constantly being reported in the journals. The probability is that the unsuccessful cases were not reported: since Paul F. Eve, nineteen years later, in the second edition of the same work (7) says: "This treatment (by injection), however, is very unsatisfactory, as the majority of cases thus treated prove. On account of the many fatal terminations which have occurred as a result of this mode of treatment, a complete excision of the

sac has been resorted to." Referring now to personal experience, I may say that in 1898 I saw an apparently uncomplicated meningocele treated by injection of iodine, which latter was immediately followed by convulsions and death.

As far back as April, 1880, W. H. Fitch (8) reported a successful operated case in the following words: "It is hardly necessary to say that in this case excision of a spina bifida was not premeditated. It was situated in the lumbar region, was $2\frac{1}{2}$ inches by $1\frac{1}{2}$ inches in size, and presented none of the usual signs of the disease. The excision, however, was complete, and after the loss of much cerebro-spinal fluid the wound healed gradually and the child was cured."

In 1889 the *Journal of the American Medical Association*, remarked editorially (9), that the testimony of recent operators seemed to indicate three pretty clearly defined facts:

1. That the escape of a considerable quantity of fluid from the sac is not necessarily attended by dangerous sequelæ.

2. That there is less danger from injury to the nerve structures than has been believed.

3. That many of the injurious results of former operations were doubtless due to lack of proper precautions relative to the prevention of sepsis.

In the *Archives of Pediatrics* for the same year, appeared (10) two articles, the one discussing the question as to the possibility of the successful operative removal of a spina bifida, and the other reporting a successful operated case.

The operative treatment being thus placed on at least a justifiable basis, in subsequent discussions and case reports more attention is paid to the methods of operating than to a justification of the operation.

Apparently the dangers incurred by the use of an open incision, owing to the always present chance of sepsis, deterred operators for the next few years from using this method. Thus in 1891, F. A. Harris, M.D. (11) reported the case of a child five days old with apparently a lumbar meningocele, where subcutaneous ligature of the pedicle resulted in sloughing of the entire mass, followed by healing and cure.

Following this in 1892, F. J. Groner, in the *Medical Record* (12), describes the case of a child seven months old, with a lumbar meningocele, where ligature of the base was followed by operative removal of the tumor. Primary union did not occur, but the child recovered.

A further modification of this method is that described by Dr. Henry Howitt, of Guelph, in 1895 (13). He makes an incision through the skin surrounding the tumor, isolates the pedicle, ligatures it without opening the sac, removes the part external to the ligature, and closes the skin incision. He reports

six cases, all of which recovered from the immediate effects of the operation; one died nine months afterwards, and a second developed hydrocephalus and also died.

One of Dr. Howitt's cases had a club-foot and vesical sphincter paralysis, the tumor containing nerve tissue. These conditions were neither improved nor rendered worse by the operation. In regard to this he makes the statement that "All portions of the cord which escape into the sac, and which are attached to and follow its inner wall, are permanently destroyed so far as their natural function is concerned; in other words, we have paralysis in the parts supplied by them, and they may be removed without adding one iota to the paresis."

That this is not a safe rule to follow is shown by the fact that Jas. H. Nicholls, of Glasgow (14), in a very interesting paper to be again referred to, tells of a case where he produced paralysis of one leg by damage done in dissecting nerve cords from the interior of the sac. Moreover, fairly numerous cases have been reported (*e.g.*, those of Pearson and Van Buren Knott) where paralysis has been relieved by dissecting free nerve tissue contained in the sac, and returning it to the spinal canal, thus showing that even if the function of extruded nerve tissue be in abeyance, it is more a matter of inhibition, possibly from the abnormal position, than of permanent destruction of function, as Dr. Howitt suggested. Consequently its operative removal would be a serious mistake, and this constitutes a very valid objection to any of these operations that do not open the sac and allow of its exploration.

In reference to the practice of ligaturing the neck of the sac. Nicholls reports two cases where relapse followed after this method had been employed. It would seem preferable to close the neck by at least two rows of catgut sutures, applied from inside the sac.

He also discusses at some length the methods of closure of the gap in the spinal column, and comes to the conclusion that the opening, when closed by fibrous tissue and muscle by layer sutures, becomes very solid. He has not found the necessity of bone transplantation.

In the same year Prof. C. Y. Pearson (15) reported a case of myelomeningocele on which he had successfully operated, where a certain amount of vesico-rectal paralysis, which had existed before the operation, had disappeared. He laid special stress on the avoidance of escape of cerebro-spinal fluid, and advises the packing of the spinal canal with gauze for this purpose. In direct contrast to this is the advice of Nicholls, who makes no attempt to prevent the escape of cerebro-spinal fluid, and who also, if hydrocephalus is present, purposely elevates the head of the child to permit of the escape of a certain amount

of the fluid before closing the neck of the sac, thinking that in some cases this may relieve or cure the condition.

The question as to what influence the operative treatment of spina bifida has in producing subsequent hydrocephalus is one worthy of some consideration. Nicholls, on the one hand, expressly states that he does not think that the operation has any effect in producing this condition, but, as we have seen, believes that it may have a certain curative influence. On the other hand, there are scattered cases in the literature where hydrocephalus developed soon after, and apparently depended for its production on the operation.

For instance, Charles G. Cumston (16) reports a case of spina bifida in the region of the fourth and fifth thoracic vertebræ. The cord was in the sac but was easily reduced, and the pedicle closed by suture. The child died on the fifth day with symptoms of hydrocephalus. Again, Dr. De Forest Willard (17) describes the case of an infant on which he operated at five weeks—where on opening the sac the entire cauda equina was found adherent to the posterior wall. The filaments were dissected free and replaced in the spinal canal. Primary union was secured, but the child at the time of writing was apparently becoming hydrocephalic, the author remarks—"a not uncommon sequel."

Lithgow (18) reports a case of a child ten months old with a spina bifida in the lumbar region. The sac was excised, pedicle closed and skin flaps brought together and sutured, the child making a complete recovery, but died ten days after operation from convulsions. The most natural explanation of this fatality would seem to be that there was hyper-secretion of cerebro-spinal fluid, which, unable to produce hydrocephalus, owing to the age of the child, and consequent fairly firm union of the sutures, did produce increased intra-cranial pressure, with convulsions and death.

It is difficult to see just what influence the removal of the sac of a spina bifida could have in producing hydrocephalus. Assuming that this latter condition is dependent on a hypersecretion of cerebro-spinal fluid (which is by no means admitted by all authorities), or even going further and assuming that the spina bifida itself is dependent on the same cause, why should the removal of the sac set up renewed or increased secretion?

It is said (19) that the cerebro-spinal fluid is secreted by the choroid plexuses, that its secretion is constant but variable in quantity, and that means for its escape are supplied by the tubular prolongations of the subarachnoid space along the nerve roots, which prolongations are continuous with the lymphatic vessels of the nerves. If we could assume that the sac of a spina bifida acted as a resorbent of the cerebro-spinal fluid,

that the operation, by cutting off this means of escape, produced a tendency toward retention, which under certain circumstances might be sufficient to produce enough intra-cranial pressure to bring about a hydrocephalic condition, we would have a fairly complete chain of events.

I have seen practically the same series of conditions occur in the case of an occipital meningocele of about the size of the child's head. It was removed by operative measures, with perfect success, primary union being secured, but within three weeks a hydrocephalic condition was apparent, which rapidly increased and soon ended in death.

It is difficult to see how the mere escape of a certain quantity of cerebro-spinal fluid, as recommeded by Nicholls, could prevent the occurrence of this complication, but on the other hand it is equally difficult to understand how the blame for the occurrence of hydrocephalus after an operation can be laid at the door of the operation itself: though "post hoc" it is not necessarily "propter hoc," especially since there is, so far as I am aware, no evidence that the sacs have any such resorbent action as I have suggested.

Another possible mode of action is that the sac, by rapidly increasing in size, affords room for the increased quantity of fluid; that when the sac is operatively removed this fluid must find room for itself elsewhere, and in so doing produces the hydrocephalic condition. If this were the case, then it would seem that those cases where there is rapid enlargement of the spinal sac would be the ones where hydrocephalus would be the most likely to develop after operation. Whether this is the case or not could only be determined by observation of a large series of such cases, and I know of no such observations.

As already noted, Nicholls feels that the practice of dissecting nerve cords from the interior of the sac is not without risk. He accordingly advises that where nerve tissue is present on the sac wall, the latter should be cut into ribbons parallel with the nerve cords, the portions free from such excised, and the internal surface of the remaining nerve cords roughened with the point of a knife and replaced in the spinal canal. If excision of even small portions of the sac is impossible, the interior is roughened as before, and the opening closed, reduction in the bulk of the tumor being obtained by fibrous contraction.

The following cases may be described as illustrative of the results to be attained by operative treatment:

P. H. aged eight years. Complaints—large discharging mass in the lumbo-sacral region. Personal history: At birth a somewhat pedunculated mass, about the size of a large hen's egg was present low down in the middle line of the back. There was no paralysis, no club-foot, nor other evidence of nerve involve-

ment. The physician in attendance advised aspiration, followed by injection, and this method of treatment (presumably the injected fluid was Morton's mixture or some modification thereof) was carried out shortly after birth. Considerable inflammatory reaction followed the injection, which apparently went on to suppuration. At any rate, a purulent discharge soon appeared, which continued, in varying quantities, up till the present. At times there was mal-odor, at times there was none. The general tendency of the mass was to enlarge and become harder, and the general health of the child remained fairly good.

Present Condition—A well-nourished little girl, about eight years of age. At the lumbo-sacral junction in the middle line is a mass about the size of an orange, slightly flattened antero-posteriorly, and attached above to the body by a short pedicle about two inches in diameter. The surface of the tumor opposed to the skin of the back is formed of healthy skin, whereas the posterior surface of the mass is extensively ulcerated, and discharges pus freely, which latter, however, chiefly comes from a sinus, the opening of which is situated at about the centre of the posterior surface. By probing, this sinus is found to pass directly inwards for about $2\frac{1}{2}$ inches, and apparently to end blindly. The mass is not tender. On palpation of the pedicle the spinous process of the last lumbar vertebra appears to be defective.

Operative removal was advised and carried out in the following manner: Elliptical incisions were made around the pedicle of the mass, through the skin, which latter was retracted. The pedicle was then cut across. It had been my intention to do this slowly, keeping up a sharp lookout for any evidence of meningeal protrusion. From the moment of the first incision into the tissues of the pedicle the hemorrhage was so very free that this object was lost sight of in the presence of the more immediate necessity of removing the mass and controlling the bleeding. Owing to the hardness and brittleness of the tissues, the control of hemorrhage was extremely difficult, artery forceps simply crushing the tissue, and causing more bleeding than ever. The actual cautery assisted somewhat, some half dozen or more artery forceps were left *in situ*, and pressure applied by means of dressings firmly bandaged in place. The patient was practically moribund, and was removed from the table with the full expectation of early death. The pressure, however, controlled the hemorrhage, and she rallied immediately, the forceps were removed at the first dressing, and the wound healed by granulation without any bad symptoms. Needless to say there was no patent meningeal protrusion.

Case 2.—Babe D., aged two days. This patient had a typical

meningocele in the lumbar region. The skin overlying the tumor was extremely thin, and rupture seemed imminent. There was no evidence of any nerve tissue being contained in the sac. Elliptical incisions were made through healthy skin, and the skin separated laterally from the pedicle of the tumor. The sac was then opened, absence of nerve tissue established, the neck of the sac sutured from inside with fine catgut in two rows, redundant tissue removed, and the skin incisions brought together and sutured with silkworm gut. Primary union was obtained, and the stitches were removed on the tenth day.

The foregoing may perhaps be said to warrant the following conclusions:

1. There are no absolute contra-indications to the operative treatment of spina bifida. The worse the case the more marked becomes the futility of other than operative measures, and the greater the probability that the child will die if left alone. Paralysis, hydrocephalus and marasmus, often spoken of as contra-indications, should not be so considered. Each has been, and may be improved.

2. *As to Method.*—In meningocele, opening of the sac, after dissecting up the skin by a pair of lateral incisions, suture of the neck, and removal of redundant tissue. In myelomeningocele and syringomyelocele, the same method combined with loosening of the nerve cords, and return of the same to the canal.

3. *As to Prognosis.*—Meningoceles, with more extended experience, should yield practically uniformly favorable results. In cases of syringomyelocele and myelomeningocele, owing to oft-present nerve involvement, the results will not be so encouraging. Paralysis may be relieved.

4. *As to Technique.*—(*a*) Absolute asepsis, combined with as little handling of nerve tissue as is essential, will give the best results. (*b*) Loss of cerebro-spinal fluid in moderate amounts is not of importance. (*c*) Operating on an inclined plane is not necessary. (*d*) The use of bony flaps is rarely, if ever, essential.

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Progress of Medical Science.

OPHTHALMOLOGY AND OTOLOGY.

IN CHARGE OF J. T. DUNCAN, M.B., M.D.C.M.

The Use and Abuse of the Lachrymal Probe.

G. F. Suker (*American Journal of Ophthalmology*) strongly opposes the use of large probes. After discussing the matter from various standpoints he summarizes his objections as follows: (1) Very large probes cause undue pain; (2) are liable to produce destruction of the membranous lining of the nasal canal; (3) are very prone to produce strictures, or at least to cause undue damage to the small opening into the sac and into the nasal canal; (4) are apt to produce an unduly large lachrymo nasal canal, and thus invite infection from the nose or cause annoying influx of air into the canal upon blowing the nose; (5) necessitate undue slitting of the canaliculus, a procedure to be zealously avoided; (6) the possible obliteration of either the canalicular or nasal opening of the sac; (7) the ease with which hemorrhages are caused in the nasal canal and the attending liability of the clot becoming organized and forming new strictures; (8) the resulting large lumen of the canal is of no actual benefit in conducting tears to the nose.

Suker also advises to use small or medium sized probes as infrequently as possible, quoting the old saying, "If you once pass a lachrymal probe that patient is liable to become a probe victim for ever and a day." Suker says, "As a matter of fact, all probes are an evil," although he does not oppose, in properly selected cases, the use of small or medium sized probes.

In this connection a paper by S. D. Ridley may be referred to (Section of Ophthalmology, American Medical Association). The paper consisted of a study of the anatomy of the lachrymal drainage apparatus, which, the author said, suggested much caution in the surgical procedures adopted to relieve the retention of tears caused by obstruction of some portion of the system. All surgical interference that impairs the physiologic function of this drainage system should, as far as possible, be avoided The nasal duct, the writer insists, is not an open drain pipe. In the experience of the author, forcible dilatation, cutting operations involving the lining tissues of the bony nasal duct, or extirpation of the lachrymal sac had rarely proved necessary when the cases had been seen at first hand. He thought that, when it is considered that the mucous

membrane forming the nasal duct lies in a bony canal subject to great anatomic variations, it was obvious that we should at least hesitate before plunging forcibly through this duct instruments that could only hopelessly injure this admirably contrived apparatus; that such means should be adopted only when other means failed.

Ocular Hemorrhages in the Newborn—The Eyes and the General Health—Errors of Refraction.

Walter L. Pyle (*American Medicine*) thus comments on these subjects: Retinal hemorrhages in newborn children occur much more frequently than is supposed. Several continental observers have found them in over a fourth of the cases examined. Bjerrum, Königstein, Schleich, Montalcini, Naumhoff, Hippel, and others have contributed statistical papers on this subject. Strange to say, choroidal hemorrhages are seldom found, and it is rare to find hemorrhages in the ciliary region, iris or anterior chamber. Usually the hemorrhages occur in the nerve-fibre layer of the retina, but there may be extravasations in the neighboring spaces of this structure and the optic nerve. They vary in shape and size, according to their anatomic location. Occasionally microscopic examination has shown no evidence of actual rupture of a retinal vessel, and by some observers it has been concluded that these hemorrhages may sometimes occur by diapedesis. If such is the case, it is likely that there would be a more rapid disappearance than when actual rupture occurs. Coburn has investigated this subject thoroughly, with a particular endeavor to ascertain whether these natal hemorrhages may not account for certain cases of amblyopia without ophthalmoscopic changes. While not bringing any strong confirmative evidence to support this thesis, he has elicited many interesting points in this connection. Notwithstanding the natural supposition that for many reasons the children of primiparas are most likely to suffer from intraocular hemorrhages, no proof of this is shown in the collective investigation. In a majority of Coburn's cases the hemorrhages were near the equatorial region, while former observers found them most often at the posterior pole. Long and complicated labors naturally predispose to the occurrence of intraocular hemorrhage, but Coburn does not unduly blame the use of forceps in such cases. Extravasations are most likely in congenitally weak children, and those with a family history of hemophilia. It is stated that the condition is most likely to be seen in negro children. Coburn believes that dilatation of the nerve sheath with cerebrospinal fluid and consequent compression of the optic nerve and central vessels, is not unlikely an important element in etiology. In some of the patients examined, even when there was no

hemorrhage, he was struck by the marked congestion of the ocular fundus.

The relation of the eyes to the general health should have wider expression. It is common to consider the visual apparatus as a separate organization, overlooking its important connection with the whole human economy. If there is a deficient blood state or nervous debility or perversion, if the secretions are abnormal; in fact, if there are any serious functional or organic changes in the body, the eyes may participate in the evil consequences. Again, ocular labor at close range is not a passive act; it requires continuous and vigorous muscular and nervous effort, and only those in normal health are able to perform continuous ocular work without more or less discomfort. Those measures and modes of life which are conducive to general health and vigor will be beneficial in maintaining ocular health and vitality. Not only must the laws of ocular hygiene be carried out, but there must also be proper observance of the general care of the body and mind.

The proper diagnosis and correction of errors of refraction require not only thorough technical education and skill and comprehensive knowledge of general medical science, but also a strong personality and a living faith in the great importance of ametropia—particularly of astigmatism, even in small amounts —in the causation of chronic ill-health. Without such faith no man, no matter how great his auxiliary attainments, is competent to diagnose or direct treatment in this class of cases. Unfortunately the European physicians, who have until recently dominated medical thought, have not as yet fully awakened to the importance of careful refraction—an art that owes so much to the patient scientific revelations of their predecessors. Lack of faith and distrust breeds carelessness and indifference. Small amounts of astigmatism are ignored, and slight deviations from the ordinary axes are overlooked. Careful subjective methods are discarded for crude and rapid objective tests. The ophthalmometer is made a fetish, mydriatics are dispensed with, and frequent re-examinations to detect changes in the refraction of the eye are deemed unnecessary. The natural sequence is the prescription of improper lenses and failure to relieve the asthenopia. Then follows the cry that too much is made of eyestrain, and that the advocates of careful refraction are "hobby-riders." Again, no little discredit has been thrown upon the correction of eyestrain in the treatment of disease by the senseless and fanatic advocacy of tenotomy or advancement in cases of properly diagnosticated asthenopic reflexes. There is little doubt that derangements in the balance of the extraocular muscles are almost always the result of ciliary strain, and in such cases it is careful refraction rather than ridiculously refined surgery that is indicated.

Editorial.

STREET CARS.

It would be a valuable department of health statistics that should tell us, if such a thing were possible, the part that street cars play in the spread of infection and the causation of disease. In all the street car cities of Ontario the ventilation of street cars is defective, and the larger the city the worse the street car air is, as a rule.

The Chief of the Brooklyn Health Department has apparently found a simple and effectual way of ventilating cars. The plan is as follows:

Two openings about ten inches apart are made in the deck-sash of the car. Slats are fitted into these openings so as to deflect the intake of air to the roof of the car; and between these openings, on the outside of the car, a shingle is extended, against which the air strikes when the car is in motion.

As the car moves at the rate of, say, fifteen miles an hour, the air strikes the shingle and is deflected into the car, and at the same time a vacuum is created in the car, so that the impure air rushes out through the rear slats. Tests showed that 300 cubic feet of air entered the car every minute. On one test the atmosphere of a car was purposely rendered very impure; then the car was set in motion, and in two and one-half minutes the air was good, but no draught was experienced. Ventilate the street cars. Many people spend hours in them every day.

THE GRANT MEMORIAL.

The Grant Memorial, highly situated on the grounds of Queen's University at Kingston, was formally opened and dedicated, November 9th. The edifice was built chiefly from the contributions of those whose training this distinguished scholar had conducted or supervised.

The Toronto *Globe* in an editorial speaks as follows: "The building will be a most useful addition to the accommodation afforded by the University, but it will also serve as a constant

reminder of two things that have been of unspeakable advantage to Queen's—the personality and administrative work of Principal Grant, and the enthusiastic and self-sacrificing devotion of the Alumni to the interests of their Alma Mater. No more fitting monument could have been erected to a man for whom mere prestige had immeasurably less attraction than the opportunity of rendering others a service."

THE TREATMENT OF INCIPIENT INSANITY.

Professor Algernon Temple in his opening lecture, in speaking of the advances in medicine during the last fifty years, referred especially to the treatment of the insane. He told us that half a century ago those suffering from the loss of reason were separated from their fellows and subjected to restraint, confinement, torture, chains and fetters, while to-day they are treated in a more rational and kindly manner.

Dr. James Russell, of the Hamilton Asylum, has recently prepared an able and interesting paper, entitled "A Plea for the Voluntary Admission of Certain Types of Insanity to Institutions for the Insane," which we are kindly allowed to publish in this issue. The author had recently a pleasing experience with a gentleman who voluntarily entered his asylum and was thus saved the humiliation of undergoing examination and being certified as a lunatic before admission. The patient was also treated in an isolated building instead of being compelled to mingle with the ordinary inmates. We can conceive of nothing more satisfactory than such a line of treatment for any broken-down neurasthenic who is threatened with lunacy.

Dr. Russell gives emphasis to the fact that many mental disorders are functional rather than organic: but with delay in treatment there is always danger of the formation of a morbid brain habit which tends to chronicity. Early treatment under the discipline of institutional life is absolutely necessary for many patients thus afflicted. The various "rest cures," with a few exceptions, have not proved satisfactory. Dr. Russell considers that provision should be made for all classes of patients suffering from threatened, incipient and acute insanity

with sufficient isolation and other comforts to meet the social requirements of each. The pathway to the institution should be made inviting, and all useless red-tape formalities should be abolished.

To no class of cases would such recommendations better apply than to those threatened with or suffering from puerperal insanity: and yet many of us in the past have been inclined to temporize too long because of the *moral effect* of the words "lunatic asylum." We feel, however, that we cannot in a short editorial do justice to such an admirable paper, which we cordially endorse in all respects. We hope that the general physician will work in unison with the expert alienist on the lines indicated by Dr. Russell.

TUBERCULOSIS OF THE PLACENTA.

Schmorl & Giepel (*Münchener med. Woch.*) have restudied this question, and conclude that transmission of the tubercle bacillus from mother to child is much more common than is generally supposed. They have had an opportunity of studying placentæ from twenty women in various stages of tuberculosis—eleven of the advanced type, four of moderately advanced, and three of the early stages. There was one case of tuberculous meningitis and one of acute miliary tuberculosis. Of the eighteen cases which were delivered at full term, there were eight placentæ containing evidence of tuberculosis. A tuberculous placenta was also obtained from a seventh-month delivery. In only three of the nine specimens could the diagnosis be made with the naked eye. In the others the microscope had to be used. Once two thousand sections had to be made before the characteristic lesion was found. The tubercles develop most often on the surface of the villi or in the intervillous spaces, but any portion of the placenta may be attacked.

Their conclusions are that it is unlikely that the child develops the disease in every case of infected placenta, but that when it *does* become tuberculous at or soon after birth, the bacilli are transmitted directly from the mother. F. A. C.

THE CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

We published in our last issue the particulars of an action for damages against Drs. W. F. Bryans and G. B. Smith, of Toronto. The plaintiff accused the defendants of assault because they had forcibly given her a hypodermic injection of morphine; of trespass because they had gone into her house without being asked by her; of conspiracy because they had conspired with her husband to deprive her of her liberty.

Dr. Bryans concluded his plain statement as to the facts as follows: "We feel the action was entirely unjust. The judge and jury took the same view. It cost us three hundred dollars each, besides time and worry. Moral—*Join the Canadian Medical Protective Association.*

It seems extraordinary that two such careful, honest and conscientious physicians should have been subjected to such a vexatious prosecution on the flimsy pretexts advanced by the plaintiff's counsel.

We publish in this issue the particulars of an action against Dr. Herbert A. Bruce, of Toronto. The patient had obstruction of the bowels with, as it turned out, some gangrene of the gut. The doctor, by the performance of a very skilful operation, had the good or ill fortune to save a life. The man did not consider that the saving of his life was worth $100, but he thought that certain superficial burns caused by an unfortunate mistake of the trained nurse were worth $5,000, and accordingly sued the doctor for that amount. The learned judge, after hearing the evidence, declined to agree with the grateful patient, and gave a verdict for the defendant.

A plain statement of the facts in each case makes comment quite needless, but we desire to remind the profession that the Medical Protective Association is an exceedingly important organization, and richly deserves the support of the profession at large. We regret exceedingly that Drs. Bryans and Smith were not members of this Association. Dr. Bruce is a member, and received a certain amount of assistance from the Executive. We understand that the President, Dr. Powell, of Ottawa, desires a larger membership and more active co-operation on the part

of various cities in all the provinces. It is suggested that a number of local secretaries be appointed, who shall assist the Executive officers in Ottawa. We are informed that much more money is urgently needed. This may be easily understood from the fact that one case last year cost the Association over $300, although winning the suit. We are requested by Dr. Bruce to say that, although he found it somewhat inconvenient to have no agent of the Association nearer than Ottawa, he at the same time highly appreciates the kindness and courtesy which he received from the officers and especially from the President, Dr. Powell.

THE TORONTO GENERAL HOSPITAL AND TORONTO DISPENSARY.

We are told that the first sod was turned, preparatory to laying the foundation stone of the present Toronto General Hospital, near the banks of the classic Don, just fifty years ago. When it was first proposed to erect a hospital on the present site many of the citizens were opposed to the location thinking that it was too far east from the centre of the city, and as a compromise a Free Dispensary was established on Adelaide Street West in 1854, which is still in existence at 133 Simcoe Street.

The first Board of Trustees appointed in 1856 were John Doel, J. G. Bowes and Dr. C. Widmer. The first Board of Physicians were Drs. Jas. H. Richardson, W. M. Hodder, J. Bovell, J. Herrick, J. Telfer and C. Widmer. Dr. Richardson alone survives.

The hospital for many years had a precarious existence, through shortage of funds. In 1862 the trustees borrowed $50,000 to pay off the debts. After a hopeless struggle the hospital was closed in 1868. It remained closed for one year and was then reopened after the local legislature had carefully considered its affairs, and thoroughly reorganized its directorate.

In 1875, through the generosity of the late Mr. Erlandson, of Port Hope, and Mr. Gentle, of Montreal, the sum of $16,000 was spent on the building. In 1877, through the generosity of Messrs. Cawthra, Gooderham and Worts, who donated a large

sum of money, the western division of the main building was erected. In 1885 a large addition was made to the left wing. In 1882 the pavilion was erected from funds donated by the late Senator Macdonald and the late Wm. Gooderham. In 1898 the down-town branch, known as the Emergency Hospital, was established on Bay Street. Miss C. McKellar has been in charge of the Burnside Lying-in Hospital for fifteen years. Miss Sadie Gladstone has been in charge of the pavilion for five years. Miss Mary Snively has had charge of the Nurses and the Training School for Nurses for twenty years.

During the fifty years the General Hospital has had only two secretaries, J. W. Brent and A. F. Miller. Mr. Miller looks after the finances of the institution. Dr. C. O'Reilly, the Medical Superintendent, has held that office from 1876 to the present. The growth of the institution under his able *regime* may be fairly appreciated by the following figures: In 1876 there were 972 patients in the hospital, and in 1903, 3,718. In 1904 it is expected that the number will be at least 4,000. The Board of Trustees at present are: J. W. Flavelle, Geo. Gooderham, M. J. Haney, P. C. Larkin and Mayor Urquhart.

* * * * * * * *

There has been but little change in the management of the Toronto Dispensary since its inception, and it has continued to do, in a very quiet and unostentatious way, great good. Among the medical men whose services have always been rendered gratuitously are the names of many well-known practitioners, such as the late Doctors Small, C. B. Hall, Hodder, Widmer, Geo. Wright, R. Zimmerman, B. Spencer, F. Greenlees, L. McFarlane, and F. H. Wright. Among those who have retired from the staff are Doctors W. W. Ogden, I. H. Cameron, F. LeM. Grasett, E. St. George Baldwin, A. E. Senkler, H. T. Machell, R. B. Nevitt, Adam Wright, A. McPhedran, Allen Baines, G. H. Burnham, W. Nattress, B. R. Riordan, J. F. W. Ross, D. C. Meyers, and others.

In looking over the Annual Report for the year 1877, we find that there were during that year 4,000 new patients, and over 6,000 old patients, making a total of 10,000 applications for relief.

In 1903 there were between 16,000 and 17,000 applications for relief.

When patients come who are too ill to be successfully treated at the Dispensary, they are sent to the Hospital; and thus the charity instead of interfering with the work of the Hospital ably supplements it.

As stated, the work is continued along the same lines and in the same section of the city as in 1854 at the organization. There are absolutely no facilities for proper work in the house occupied, which is a two-story house in a row. The hall is the waiting-room. A proper building suitably equipped is sadly needed to enable poor patients to obtain the advantages of modern advances in medical and surgical work.

It is estimated that $10,000 would furnish such a building.

The names of the physicans now acting are Doctors A. Davidson. J. W. Lesslie, G. B. Smith, W. H. B. Aikins, W. J. Greig, A. H. Garratt, J. F. Dawson, W. H. Pepler, Harley Smith, J. MacCallum, D. J. G. Wishart, and Goldwin Howland.

NEW PHYSICS BUILDING FOR THE UNIVERSITY OF TORONTO.

The authorities of the University of Toronto were both pleased and surprised when they learned, November 29th, that the Government had decided to give $180,000 for the building of a new Physics building. The Government is receiving this amount from the Grand Trunk Railway for the old Parliament buildings on Front Street, and has decided that it shall be placed to a special account for the benefit of the University instead of going into the general revenue.

Plans for the new building were prepared some time ago in connection with the general plans for the additions to the University which have been going on for some time. In accordance with these plans, which have been prepared by Messrs. Darling & Pearson, the new building will be erected without encroaching on the recreation or park grounds.

Mr. W. T. White, one of the recently elected members on the Senate, while approving of the new grant thinks it will not be sufficient, and proposes that the Province of Ontario should

adopt the plan carried out in certain of the States of the American Union: *i.e.*, to levy a direct tax of one-tenth of one mill on the dollar on the assessed value of property in the Province. The revenue thus produced would be about $90,000 a year. He thinks that otherwise the University will always be asking for money; or, when it ceases to do so it will be dead.

Toronto Medical Society.

On the first Thursday of each month the Executive of the Toronto Medical Society has arranged for a meeting of its members at one of the Hospitals as follows: Jan. 5th, 8.30 p.m. sharp, Western Hospital; Feb. 2nd, 8.30 p.m. sharp, Grace Hospital; March 2nd, 8.30 p.m. sharp, St. Michael's Hospital; April 6th, 8.30 p.m. sharp, Toronto General Hospital.

At each of these meetings the Hospital Staff will present a full complement of interesting clinical cases, and the Hospital Board furnish refreshments for a pleasant social gathering at the close.

Hospital for Consumptives.

At a meeting of the Trustees of the Toronto Free Hospital for Consumptives, held November 9th, at the National Club, Toronto, with Mr. W. J. Gage in the chair, the Secretary reported that forty patients had already been received into the new institution near Weston, and that building operations are still in progress adding to the accommodation. Dr. Allan H. Adams is the Physician-in-charge.

The Negri Bodies.

Dr. Negri, of the University of Pavia, described about a year ago peculiar bodies found in the nerve cells of animals that had died of hydrophobia. These bodies are almost constantly present in the protoplasm but seldom in the nucleus. Found in greatest abundance in the hippocampus major, they also appear in the cerebrum, pons, cord, and in the Purkinje cells of the cerebellum. The bodies Dr. Negri describes are usually round or oval, and vary much in size from those just visible to the microscope to forms measuring twenty-five microns in length. They take the ordinary stains and resist putrefaction for several days. The presence or absence of these bodies is an important aid to the diagnosis of hydrophobia, and their discovery marks progress in our knowledge of this peculiar and little-understood disease.

ARMSTRONG *VS.* BRUCE.

This was an action brought by Charles Armstrong, of Brampton, against Dr. H. A. Bruce, for burns received from a hot water bag while the latter was performing an operation upon him. The facts of the case are briefly as follows:

Dr. Bruce was called to Brampton by Dr. Lawson, on Nov. 23rd, 1903, to see Mr. Armstrong, who was suffering from acute intestinal obstruction.

Armstrong had been sick with the usual symptoms of obstruction for two days, and Dr. Lawson had given purgatives and enemata without result. When Dr. Bruce saw him he had severe abdominal pain, distention, rigidity of the muscles, vomiting, a very weak pulse and a subnormal temperature with hippocratic facies.

A room in Armstrong's house had been prepared that morning for the operation by Miss Fawcett, a trained nurse, a graduate from Galt hospital, engaged by Dr. Lawson, acting for Armstrong. Dr. Bruce took with him a Kelly pad, which can be filled with hot water or air, and said to the nurse, "This is an improvement on the old Kelly pad, as it can be filled with hot water, and serves to keep the patient warm during the operation, obviating the necessity for hot water bottles. Fill it just as you would an ordinary hot water bottle." The nurse took it and had it filled with *boiling water* and placed it under the patient. While this was going on Dr. Bruce was washing and disinfecting his hands and placing his instruments, sutures, etc. The operation was proceeded with and the obstruction found to be due to a knuckle of bowel strangulated in the internal abdominal ring and adherent there. This was separated with some difficulty and withdrawn, when a small portion of bowel —about the size of a five-cent piece, was found to be gangrenous. This was turned in and sewn over with Lembert sutures, so that it might be thrown off into the gut.

The patient made a good recovery from the operation, but the next day he was found to have received superficial burns across the back and thighs. These were painful but not severe, and were healed at the end of seven weeks when he was able to be up and about the house. Altogether he was confined to the house about ten weeks.

When Dr. Bruce's account was sent later, Armstrong declined to pay it, stating that he had been burned. As no payment was made at the end of six months, after several requests, Dr. Bruce sued him for $100, amount of his account, and a week later Mr. Armstrong issued a writ against Dr. Bruce for $5,000. He claimed that the operation was unnecessary and that he had been burned through negligence. According to the evi-

dence of Drs. Bruce, Hall and Lawson, the plaintiff would not have survived forty-eight hours but for the operation.

The trial was held at Brampton on October 25th, before the Hon. Mr. Justice Meredith. Mr. Riddell and Mr. Mulock appeared for Dr. Bruce.

Expert evidence was given by Mr. I. H. Cameron, Drs. J. F. W. Ross, Geo. A. Bingham, John Caven, Wm. Hall, and J. A. Lawson. The following nurses were present to give evidence on behalf of Dr. Bruce, but His Lordship after hearing the medical evidence intimated that it was unnecessary to call them: Miss Eastwood, Superintendent of Victorian Order of Nurses; Miss Patton, Superintendent of Grace Hospital; Miss Graves, head nurse at St. Michael's Hospital; Miss Gray, Superintendent of Home for Incurables, and Miss Falkiner, graduate of Toronto General Hospital.

The evidence for the defendant went to show that the preparation of the patient, placing him upon the operating table and the filling of hot water bottles, etc., was the familiar knowledge of the nurse and her duty, and that the surgeon had nothing whatever to do with these details. It was clearly proven, even by the evidence of Miss Fawcett that nurses receive during their training, instruction in the filling of hot water bags and that they know the proper temperature of water for this purpose. The medical evidence showed that a surgeon is justified in trusting a nurse with filling these bags and is not required to examine them to assure himself that they are not too hot.

It was shown that after a surgeon is disinfected and prepared for the operation, it would be grossly wrong and a source of danger to the patient for him to feel hot water bags, which are unsterilized. That a surgeon *must* trust the nurse with the preparation of solutions, sponges, hot water bottles, etc., and that it is impossible for him to attend to these details. Any mistakes made in these preparations would be a danger to the patient and might result fatally. Operations are performed nowadays with safety which were not possible a few years ago. This is owing to the development of antiseptic surgery and the efficient training of nurses, and their help at an operation is absolutely necessary to the successful carrying out of the antiseptic details. The surgeon could not be expected to attend to these details and must necessarily trust his nurses.

His Lordship's judgment was as follows:

The plaintiff sustained a very painful injury, and one which has caused him some loss. These facts do not necessarily entitle him to relief from the defendant. In order to have damages in this action he must satisfy the court that the defendant has been guilty of some actionable negligence. The defendant is a skilled

gentleman, a gentleman of the medical profession, and what would in an ordinary individual be but mere negligence would in his case, no doubt, be gross negligence. Had he done that which the nurse testifies he did, it would in my judgment have been gross negligence. Whether I would be obliged to say that the injury which the plaintiff sustained was the natural effect of that negligence is another question and one which I need not determine. What I have now to find is whether the plaintiff has affirmatively shown that there was negligence on the part of the defendant in occasioning the injury of which he complains.

I am unable to find upon the evidence that the nurse's statement is accurate. She is, I think, quite mistaken as to the direction proceeding from the defendant in regard to the filling of the pad. I am satisfied that she has confused that which he said in regard to sterilizing his instruments, with that which he said in regard to filling the pad. I have no manner of doubt that if the doctor had said to any experienced nurse that she was to fill that pad with *boiling water* it would at once have struck her as an extraordinary thing, and one calling for some explanation. Nothing of that sort took place. It was a thing that could not have been done by Dr. Bruce, unless through a slip of the tongue. He never meant that she should do that which she did. So that the probabilities are altogether against the story of the nurse. And the direct testimony very greatly preponderates in favor of the defendant. We have Dr. Bruce's own statement, which is worthy of at least as much credence as that of the nurse. No doubt everyone is naturally prejudiced in his own favor in a case of this kind, and Dr. Bruce's action in saving himself against a charge of negligence is to some extent affected by his interest. On the other hand, the nurse is saving herself from a charge of negligence, and probably an action for the recovery of damages. They stand upon an equal footing as far as that is concerned. Then there is the testimony of the other two medical gentlemen, who say that the nurse is mistaken. Upon the whole I find that the direction to fill the pad with *boiling water* was *not* given, but the direction was given to fill it as if it were a hot water bottle, and if that be so, the plaintiff's case seems to me to fall to the ground. I cannot find any negligence in Dr. Bruce having under the circumstances assumed that the nurse would perform her duties properly. I cannot think that upon this branch of the case anything like a case is made out for the plaintiff. It is not contended that liability arose by reason of any relationship of master and servant having existed between the defendant and the nurse. The facts would not support any such contention. There was no such relationship.

The only question which causes me any trouble is as to the disposition of the costs. Under all the circumstances of the case, I think I am fairly exercising my discretion in making no order as to costs of the action.

The action will be dismissed without costs if the case go no further. If it go further, dismissed with costs, and there will be judgment for the defendant on the counter-claim with costs on the Division Court scale, without any set-off.

The plaintiff has not appealed from this judgment, and the time within which he could do so has expired.

Personals.

Dr. A. H. Anderson (Trin. '02) is a surgeon in the Japanese army.

Dr. A. A. Macdonald, of Toronto, has removed to 341 Bloor Street west.

Dr. Allen Baines, of Toronto, has removed to 226 Bloor Street west.

Dr. L. F. Miller, of Toronto, will spend the winter in southern California.

Dr. Kenneth McKinnon (Tor. '01) was married October 12th to Miss Tytler.

Dr. Allan Shore, of Toronto, has removed to 425 Bloor Street West.

Dr. W. J. Clarke has removed from Orangeville to 475 Dovercourt Road, Toronto.

Dr. John M. Amyot has removed from 30 St. Joseph Street, Toronto, to Thornhill.

Dr. D. McGillivary has been appointed Tutor in Medicine in the University of Toronto.

Dr. Uzziel Ogden has removed from Carlton Street to 21 Maple Avenue, Rosedale.

Dr. W. C. Barber has been appointed Assistant Superintendent of the Kingston Asylum.

Dr. Major H. Laings (Tor. '03), of Hamilton, was married October 19th to Miss Rothwell.

Dr. Morley Currie, M.P.P., of Picton, was married November 2nd to Miss Clarke, of Toronto.

Dr. J. F. McConnell has removed from Las Cruces, New Mexico, to Colorado Springs, Col.

Dr. Murray MacFarlane has removed to 18 Carlton Street, the former residence of Dr. Ogden.

Dr. J. A. Roberts, of Toronto, after a visit to Baltimore, started for Winnipeg, November 24th.

Dr. Geo. M. Briggs has been appointed Assistant to the Superintendent at the Mimico Asylum.

Dr. McNaughton, of London, has been transferred to Kingston, to take the place of Dr. Herriman.

Dr. W. T. Wilson has been transferred from Hamilton to the London Asylum, to succeed Dr. McNaughton.

Dr. W. H. B. Aikins returned to Toronto, November 23rd, after having spent a week in New York City.

Dr. L. G. Stewart, of Toronto, sailed October 19th for Glasgow, and will do post-graduate work in Glasgow, Edinburgh and London.

Dr. Robert Turnbull (Trin. '01), of Torah, Minn., was married October 19th to Miss Lundy, of Newmarket.

Dr. W. C. Herriman has been removed from Kingston to London, to take the place of Dr. Bell in the Asylum.

Dr. W. P. St. Charles, of the Mimico Asylum, has been appointed Relieving Officer to the Public Institutions of Ontario.

Dr. Brefney O'Reilly returned to Canada, landing at Vancouver, November 28th, after a trip to Japan on the steamship *Tartar*.

We hear from time to time that Dr. H. C. Wrinch (Trin. '99) is doing good work in British Columbia. Through his efforts a hospital has been completed at Hazelton, B.C.

Dr. R. W. Bell, Second Assistant Physician at the London Asylum for Insane, has been transferred to the position of Medical Inspector of the Provincial Board of Health.

A statue has been erected to the memory of Dr. E. B. Davis, late of Birmingham, Alabama. It has been placed in Capitol Park, in the city of Birmingham, and will be unveiled, December 16th, during the meeting of the Southern Surgical and Gynecological Associations, in that city.

The following appointments have also been made in the Medical Faculty of the University of Toronto: Dr. B. E. Henderson, who spent last year in study at Prague Marburg, Administrator in Dermatology and Pharmacology; Dr. W. J. O. Malloch and Dr. A. O. Hendrick, Administrators in Physiology.

Obituary.

WILLIAM McGILLIVRAY, M.B.

Dr. William McGillivray died at his home in Pipestone, Minnesota, November 28th, aged 39. The cause of death was septicemia. He was born in Whitby, Ontario, and graduated from the University of Toronto in 1890. After practising in Ontario for some years he went to Minnesota in 1896, where he practised for eight years. Dr. McGillivray was well known in this part of Canada, and was much loved by his numerous friends. He leaves a wife, three children, two brothers, physicians—Drs. C. F. McGillivray, of Whitby, and Donald McGillivray, of Toronto—one brother-in-law, a physician, Dr. Fotheringham, and numerous other relatives. William McGillivray was one of Canada's best products—an excellent physician, a manly man, a good and useful citizen in all respects. His untimely death has caused the deepest regret both in his former home in Ontario and in his later home in Minnesota.

Book Reviews.

Visiting and Pocket Reference Book for 1905.

The following is a comprehensive contents: Table of Signs, and How to Keep Visiting Accounts; Obstetrical Memoranda; Clinical Emergencies: Poisons and Antidotes: Dose Table; blank leaves for Weekly Visiting List; Memorandum; Nurses' Addresses; Clinical, Obstetrical, Birth, Death and Vaccination Records; Bills Rendered; Cash Received; Articles Loaned; Money Loaned; Miscellaneous; Calendar, 1905, 126 pages; lapel binding, red edges. This very complete Call Book will be furnished by the Dios Chemical Co., of St. Louis, Mo., on receipt of ten cents for postage.

Light Energy; Its Physics, Physiological Action and Therapeutic Applications. By MARGARET A. CLEAVES, M.D., Fellow of the New York Academy of Medicine; Fellow of the American Electro-Therapeutic Association; Member of the New York County Medical Society; Fellow of the Société Française d'Électrothérapie; Fellow of the American Electro-Chemical Society; Member of the Society of American Authors; Member of the New York Electrical Society; Professor of Light Energy in the New York School of Physical Therapeutics; Late Instructor in Electro-Therapeutics in the New York Post-Graduate Medical School. With numerous illustrations in the text and a frontispiece in colors. New York: Rebman Company, 10 West 23rd Street, cor. 5th Ave. London agents: Rebman Limited, 129 Shaftesbury Avenue, W.C. Sole Representative in Canada: C. E. Wingate, 186 Adelaide W., Toronto.

Health and Disease in Relation to Marriage and the Married State. A manual contributed to by many authors. Edited by Geh. Medizinalrat PROF. DR. H. SENATOR and DR. MED. S. KAMINER. The only authorized translation from the German into the English language, by J. DULBERG, M.D., of Manchester, England. In two handsome Royal 8vo volumes of about 500 pages each, bound in cloth, $7.00 net; in half leather, $8.50. New York: Rebman Company, 10 West 23rd Street. Sole Representative in Canada: Charles E. Wingate, 186 Adelaide St. W., Toronto.

The Physician's Pocket Account Book, by DR. J. J. TAYLOR, is a neat, compact, easily kept and strictly legal book, carried in the pocket, always with you, showing each person's account at a glance. All entries are made but once, on the day when the services are rendered, in plain legal language, and require no posting or further attention. Published by the author, 4105 Walnut Street, Philadelphia.

By always being able to show all inquirers the exact state of their accounts wherever you may meet them, showing date and nature of each transaction, you will save more than enough in one year to buy account books for a hundred years. Being simple and complete, it will save you much valuable time in keeping your accounts and much needless worry as to their correctness.

Briefly the advantages of this book are: (1) Easily kept—requiring about one-fourth the time of other styles; (2) simple and easily understood by all; (3) always up-to-date without posting; (4) always with you to show any one his account when he wishes to pay; (5) strictly legal and entirely admissible as evidence; (6) no more expensive than other forms of books.

The book contains obstetric, vaccination, and death records and cash accounts. The book is $4\frac{1}{4}$ by $6\frac{3}{4}$ inches, containing over 224 pages. Prices: Bound in leather, $1.00; also bound in manilla boards with separate leather case. Price of case and two manilla books, $2.00. Subsequent manilla books to use in the case, 60 cents each, two for $1.00, three for $1.40: also large size for desk or office use, $4.00. Address Dr. J. J. Taylor, author and publisher, 4105 Walnut Street, Philadelphia, Pa.

Essentials of Chemistry, Organic and Inorganic. Containing also questions on Medical Physics, Chemical Philosophy, Medical Processes, Toxicology, etc. By Lawrence Wolff, M.D., formerly Demonstrator of Chemistry at the Jefferson Medical College, Philadelphia. Sixth edition, thoroughly revised. By A. Ferree Witmer, Ph.G., formerly Assistant Demonstrator in Physiology at the University of Pennsylvania. 12mo volume of 225 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Cloth, $1.00 net. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

We need but mention the fact that this little work has reached its sixth edition to prove beyond question its practical usefulness. The recent important discoveries in physics and inorganic chemistry have rendered it necessary, in Dr. Witmer's revision, to make extensive additions almost to every part of the work. The subject of organic chemistry, especially organotherapy and the substituted ammonias, has also been carefully revised and much new matter added. We find the book unusually excellent.

Essentials of Nervous Diseases and Insanity: their Symptoms and Treatment. By John C. Shaw, M.D., late Clinical Professor of Diseases of the Mind and Nervous System, Long Island College Hospital Medical School. Fourth Edition, Thoroughly Revised. By Smith Ely Jelliffe, Ph.G., M.D., Clinical Assistant, Columbia University, Department of Neurology; Visiting Neurologist, City Hospital, New York. 12mo volume of 196 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto. Cloth, $1.00 net.

Of the progress made in every branch of medicine during the last few years, none has been more prominent than that considering diseases of the nervous system and of the mind. Dr. Smith Ely Jelliffe, therefore, in making the revision for this new fourth edition, has found it necessary to recast the work entirely, bringing the order of arrangement in accord with the

present knowledge of these important subjects. Quite a commendable change in arrangement is the grouping of subjects in such a way as to bring out the natural relations of affiliated nervous disorders. This will be found of great service to the student.

In the section on disorders of the mind, the general views of such leading psychologists as Ziehen, Weygandt, Kraepelin, Berkeley, and Peterson have been carefully weighed. This new fourth edition is well worthy our recommendation, and we give it most heartily.

Hand-Book of the Anatomy and Diseases of the Eye and Ear. For Students and Practitioners. By D. B. St. John Roosa, M.D., LL.D., Professor of Diseases of the Eye and Ear in the New York Post-Graduate Medical School; formerly President of the New York Academy of Medicine, etc.; and A. Edward Davis, A.M., M.D., Professor of Diseases of the Eye in the New York Post-Graduate Medical School; Fellow of the New York Academy of Medicine. 300 pages, square, 12mo. Price, extra cloth, $1.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

This is a small volume on a large subject, with all the faults and all the virtues of a manual. One praiseworthy feature, which distinguishes it from nearly all other text-books, is the introduction of the derivation of the technical terms—a most important thing to the student in these days when a classical education is becoming a story of the past. The descriptions are very clear, but there are no illustrations.

Physician's Visiting List (1905)—Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. Sold by all booksellers and druggists.

This handy pocket visiting list has been published now for fifty-four years and has earned its reputation of being the best in the field. It leaves nothing to be desired by the busiest physician. Having once used it, he can never be without it again.

The Suppression of Tuberculosis, together with observations concerning phthisiogenesis in man and animals, and suggestions concerning the hygiene of cow stables and the production of milk for infant feeding, with special reference to Tuberculosis. By Prof. E. von Behring, University of Marburg. Translated by Chas. Baldwin, M.D. New York: Jno. Wiley & Sons. London: Chapman & Hall, Limited.

This small book embodies Behring's opinions on tuberculosis, with which readers of the Practitioner are already familiar. The principal article is translated from a lecture delivered in Cassel, September 25, 1903, which was criticized especially in Germany.

The Mother's Manual. A month by month guide for young mothers. By EVELYN LINCOLN COOLIDGE, M.D., Visiting Physician of the Out-Patient Department of the Babies' Hospital, New York; formerly House Physician of the Babies' Hospital, New York; Physician in charge of the Babies' Clinic of the Society of the Lying-in Hospital of the City of New York. Illustrated. New York: A. S. Barnes & Co. 1904. Price, $1.00 net.

This little work by a woman who has won eminence and wide reputation during her connection with a New York hospital has much to commend it. It deals with the care and treatment of the infant month by month for the first year, then by half years up to the fifth year. Chapter seventeen, "The fourth to the seventh year," concludes with the following sane remarks on *growing pains*: "When a child complains of pains in the legs or other parts of his body the mother usually thinks he has 'growing pains' and does not pay much attention to them. Now, in children over four years old these pains often denote rheumatism, and the child who frequently complains of them should be taken to a doctor for treatment.',

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A Text-Book of Diseases of Women. By CHARLES B. PENROSE, M.D., Ph.D., formerly Professor of Gynecology in the University of Pennsylvania. Fifth Edition, thoroughly revised. Octavo volume of 539 pages, with 221 fine original illustrations. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Cloth, $2.75 net. Canadian agents: J. A. Carveth & Co., Toronto.

When a text-book reaches its fifth edition in a few years it is almost a certain sign that it is accomplishing its purpose. Although primarily designed for students this volume is of great use to practitioners as well, because the teaching is thoroughly up-to-date and the material so well arranged as to be quickly got at. The new edition is, of course, an improvement on the others. Much new matter and some original illustrations have been added, making this work one of the best of its kind.

Enlargement of the Prostate: Its Treatment and Radical Cure By C. MANSELL MOULLIN, M.D., Oxon., F.R.C.S., Senior Surgeon and Lecturer on Surgery at the London Hospital; Member of the Council of the Royal College of Surgeons; Examiner in Surgery in the University of Cambridge; late Radcliffe's Travelling Fellow; Fellow of Pembroke College and Examiner in Surgery in the University of Oxford; and Hunterian Professor at the Royal College of Surgeons. Third Edition. London: H. K. Lewis, 136 Gower St., W.C. 1904.

The third edition of this work is to hand. Nothing but the most favorable comment can be made upon anything that this author writes, as he is most particular to go into minute details and description of anatomical and physiological functions. While he does not favor the Freyer operation for the removal of the prostate, we feel that in an edition published in 1904 the

suprapubic operation should have a little more elaborate description, because we cannot gainsay the fact that Freyer has made a big improvement in the technique of prostatectomy.

The volume should be on the shelves of all surgeons who attempt any of the prostatic operations.

Electric-Static Modes of Application, Therapeutics and the Use of Roentgen Rays. By WILLIAM BENHAM SNOW, M.D., Professor of Electro-Therapeutics and Radiotherapy in the New York School of Physical Therapeutics; Editor of the *Journal of Advanced Therapeutics*; late Instructor in Electro-Therapeutics in the New York Post-Graduate School, etc. Second Edition, revised and enlarged. Contains more than one hundred illustrations, including ten full-page half-tones showing the various methods of posturing and treating conditions. Price, cloth bound, $3.00. New York: A. L. Chatterson & Co., 97-99 Reade St.

This volume embraces the whole subject. It deals with all the conditions that electricity could possibly be put to and with some that it shouldn't. There are so many good things in the book, however, that it is not fair probably to condemn it entirely, but for anything from pain in the toe to inflammation in the brain electricity appears to be the only remedy that is of use.

The Practical Application of the Roentgen Rays in Therapeutics and Diagnosis. By WILLIAM ALLEN PUSEY, A.M., M.D., Professor of Dermatology in the University of Illinois; and EUGENE W. CALDWELL, B.S., Director of the Edward N. Gibbs Memorial X-ray Laboratory of the University and Bellevue Hospital Medical College, New York. Handsome octavo volume of 690 pages, with 195 illustrations, including four colored plates. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Cloth, $5.00 net; Sheep or Half Morocco, $6.00 net. Canadian agents: J. A. Carveth & Co., Toronto.

This excellent work has attained the distinction of two large editions in one year—a proof not only that such a work was needed, but also of the book's practical value. The vast amount of literature accumulated during the past year has been very carefully digested and the latest knowledge and advancements incorporated. A practical feature of the work lies in the fact that nearly all the illustrations represent actual clinical subjects showing the benefits of the X-rays at various stages of their application. The chapters by Caldwell give full details regarding the use and management of the apparatus, the text being fully illustrated with many photographs and drawings including four full-page colored plates. The second edition has been brought strictly down to date, especially the case histories cited; and by the addition of much new matter and a number of new illustrations, the usefulness of the work has been greatly extended.

We are very pleased to notice that the author has pointed out the great difficulty with which kidney-stones are recognized and located. We note with pleasure their statement showing the exact status of this work and how well it is being recognized.

We have had such difficulties with kidney-stone work and have met with such emphatic statements by certain radiographers that they always can locate them, that it is exceedingly pleasing to find authors of the ability of Pusey and Caldwell placing the matter in this thoroughly honest way. The illustrations in the book are exceedingly good and the typography is excellent, but we really believe that it would be very much better if it was printed on a less heavy paper. Coated and heavy paper is always disagreeable to handle, notwithstanding the fact that it costs more.

It is a work that every surgeon should have on his book-shelf.

Regional Minor Surgery. By GEORGE GRAY VAN SCHAICK, Consulting Surgeon to French Hospital, N.Y. Second Edition, enlarged and revised. 228 pages, bound in cloth, profusely illustrated. Price, $1.50. International Journal of Surgery Co., N.Y.

The object of the author has undoubtedly been to supply a volume that will be of aid to the student and practitioner for minor work, and he has very wisely omitted all reference to major work. A peculiar typographical error occurs on page 10: "A piece of septic gauze is placed." There can be no doubt about what is meant: "A piece of aseptic gauze is placed." We find that in a previous edition the word "aseptic" appeared, which shows that it is purely a typographical error. The description and illustrations of the operation on hare lip are particularly good, embracing in a manner not shown in any other work, the necessity of keeping a little superfluous tissue to form a nipple on the lip, which will retract in time. This possibly is the most important detail in this operation. There are so many good points that it is hard to specialize. The whole work is one that we can thoroughly recommend.

Taylor on Genito-Urinary and Venereal Diseases and Syphilis. A Practical Treatise for Students and Practitioners. By ROBERT W. TAYLOR, A.M., M.D., Clinical Professor of Genito-Urinary Diseases in the College of Physicians and Surgeons, New York. New (third) Edition, revised and enlarged. Octavo, 757 pages, with 163 illustrations and 39 plates in colors and monochrome. Cloth, $5.00; Leather, $6.00; Half Morocco, $6.50 net. Philadelphia and New York: Lea Brothers & Co., Publishers. 1904.

This is a most comprehensive treatise and Dr. Taylor has brought it up-to-date. Our review of the previous edition was made complete. We hope, however, that the colored illustrations will be omitted in the future editions. They do not convey the idea that is intended, and in the writer's opinion are a great detriment to so beautiful a volume. The black and white half-tones, however, were most admirable, and they illustrate the subject so beautifully that they are of real value. We are pleased to note and commend the author's condemnation of the routine use of the endoscope. It is so awkward to have a patient sent

to you for endoscopical examination of which you do not see the necessity, yet you feel it your duty to make the examination because the physician has promised the patient that that will be the procedure at the consultation. It is a great instrument and its use should be encouraged, but its abuse is one of the things that we should learn to recognize. There are many other points that the writer could comment on, but we feel that it is superfluous. When we say that there is no other work in the English language that handles the subject so completely we have fully covered the ground. It is a volume that all physicians and surgeons should possess.

Some Problems of Presbyopia.

At the Ophthalmological Section of the American Medical Association Dr. George M. Gould, of Philadelphia, presented the following statements based on his experience:

1. In oncoming presbyopia cycloplegia generally necessary to obtain the static refraction on which the presbyopia is based.

2. Age at which correction should be first given depends on the pre-existing refractive error.

3. Correction of error often dependent on amblyopia from disease.

4. Less accommodation may condition the amount of presbyopic error.

5. Onset of presbyopia may be delayed by hypertrophied accommodation.

6. Age of correction of presbyopia and degree of error depend on amount of near work.

7. Presbyopes who misstate age may suffer if oculist does not detect error.

8. Occupation may necessitate higher and earlier correction than usual.

9. Quality and power of light must be considered.

10. Position of body and head in near work may be harmful.

11. Effect of general health, vitality, vigor of will and of body.

12. Failure to cure reflexes of eyestrain may be due to want of bifocals.

13. Eye glasses being more prone to maladjustment than spectacles may cause failure to relieve symptoms or sequels of eyestrain.

14. Premature presbyopia, possibly years before usual age, may explain failure to relieve symptoms when none of the preceding causes will do so.

15. Systemic disease, and not presbyopia or eyestrain, may cause symptoms. The writer reported a number of cases illustrating his argument. He uses cycloplegics up to the age of sixty. J.T.D.

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